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<213> Homo sapiens
<400> 84
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<223> n equals a,t,g, or c

<220> <221> SITE <222> (18)

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<400> 89

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<210> 97 <211> 401 <212> PRT <213> Homo sapiens								
<400> 97 Met Arg Leu Arg Leu Ar 1 5	rg Leu Leu Ala	Leu Leu Leu Leu 10	Leu Leu Ala 15					
Pro Pro Ala Arg Ala Pr 20	o Lys Pro Ser 25	<u>-</u>	Ser Leu Gly 30					
Val Asp Trp Leu Thr An	rg Tyr Gly Tyr 40	Leu Pro Pro Pro 45	His Pro Ala					
Gln Ala Gln Leu Gln Se	er Pro Glu Lys 55	Leu Arg Asp Ala 60	Ile Lys Val					
Met Gln Arg Phe Ala G	ly Leu Pro Glu 70	Thr Gly Arg Met	Asp Pro Gly 80					
Thr Val Ala Thr Met An 85	g Lys Pro Arg	Cys Ser Leu Pro 90	Asp Val Leu 95					
Gly Val Ala Gly Leu Va	al Arg Arg Arg 105		Leu Ser Gly 110					
Ser Val Trp Lys Lys Ai	rg Thr Leu Thr 120	Trp Arg Val Arg	Ser Phe Pro					
Gln Ser Ser Gln Leu Se 130	er Gln Glu Thr 135	Val Arg Val Leu 140	Met Ser Tyr					
Ala Leu Met Ala Trp G 145		Gly Leu Thr Phe 155	His Glu Val 160					
Asp Ser Pro Gln Gly Gl 165	n Glu Pro Asp	Ile Leu Ile Asp 170	Phe Ala Arg 175					
Ala Phe His Gln Asp Se	er Tyr Pro Phe 185		Gly Thr Leu 190					

Ala His Ala Phe Phe Pro Gly Glu His Pro Ile Ser Gly Asp Thr His 200 Phe Asp Asp Glu Glu Thr Trp Thr Phe Gly Ser Lys Asp Gly Glu Gly Thr Asp Leu Phe Ala Val Ala Val His Glu Phe Gly His Ala Leu Gly 230 Leu Gly His Ser Ser Ala Pro Asn Ser Ile Met Arg Pro Phe Tyr Gln Gly Pro Val Gly Asp Pro Asp Lys Tyr Arg Leu Ser Gln Asp Asp Arg Asp Gly Leu Gln Gln Leu Tyr Gly Lys Ala Pro Gln Thr Pro Tyr Asp 280 Lys Pro Thr Arg Lys Pro Leu Ala Pro Pro Pro Gln Pro Pro Ala Ser Pro Thr His Ser Pro Ser Phe Pro Ile Pro Asp Arg Cys Glu Gly Asn Phe Asp Ala Ile Ala Asn Ile Arg Gly Glu Thr Phe Phe Lys Gly 330 Pro Trp Phe Trp Arg Leu Gln Pro Ser Gly Gln Leu Val Ser Pro Arg Pro Ala Arg Leu His Arg Phe Trp Glu Gly Leu Pro Ala Gln Val Arg Val Val Gln Ala Ala Tyr Ala Arg His Arg Asp Gly Arg Ile Leu Leu 375 380 Phe Ser Gly Pro Gln Phe Trp Val Phe Gln Asp Arg Gln Leu Glu Gly Gly

<210> 98

<400> 98

Met Gly Thr Ala Gly Ala Met Gln Leu Cys Trp Val Ile Leu Gly Phe 1 5 10 15

Leu Leu Phe Arg Gly His Asn Ser Gln Pro Thr Met Thr Gln Thr Ser 20 25 30

Ser Ser Gln Gly Gly Leu Gly Gly Leu Ser Leu Thr Thr Glu Pro Val 35 40 45

Ser Ser Asn Pro Gly Tyr Ile Pro Ser Ser Glu Ala Asn Arg Pro Ser 50 60

His Leu Ser Ser Thr Gly Thr Pro Gly Ala Gly Val Pro Ser Ser Gly 65 70 75 80

Arg Asp Gly Gly Thr Ser Arg Asp Thr Phe Gln Thr Val Pro Pro Asn

<211> 205

<212> PRT

<213> Homo sapiens

Ser Thr Thr Met Ser Leu Ser Met Arg Glu Asp Ala Thr Ile Leu Pro 105 Ser Pro Thr Ser Glu Thr Val Leu Thr Val Ala Ala Phe Gly Val Ile Ser Phe Ile Val Ile Leu Val Val Val Ile Ile Leu Val Gly Val 135 Val Ser Leu Arg Phe Lys Cys Arg Lys Ser Lys Glu Ser Glu Asp Pro Gln Lys Pro Gly Ser Ser Gly Leu Ser Glu Ser Cys Ser Thr Ala Asn 170 Gly Glu Lys Asp Ser Ile Thr Leu Ile Ser Met Lys Asn Ile Asn Met Asn Asn Gly Lys Gln Ser Leu Ser Ala Glu Lys Val Leu 200

<210> 99

<211> 672

<212> PRT

<213> Homo sapiens

<400> 99

Met Cys Ser Arg Val Pro Leu Leu Pro Leu Leu Leu Leu Ala Leu Gly Pro Gly Val Gln Gly Cys Pro Ser Gly Cys Gln Cys Ser Gln Pro Gln Thr Val Phe Cys Thr Ala Arg Gln Gly Thr Thr Val Pro Arg Asp Val Pro Pro Asp Thr Val Gly Leu Tyr Val Phe Glu Asn Gly Ile Thr Met Leu Asp Ala Gly Ser Phe Ala Gly Leu Pro Gly Leu Gln Leu Leu Asp Leu Ser Gln Asn Gln Ile Ala Ser Leu Pro Ser Gly Val Phe Gln Pro Leu Ala Asn Leu Ser Asn Leu Asp Leu Thr Ala Asn Arg Leu 105 His Glu Ile Thr Asn Glu Thr Phe Arg Gly Leu Arg Arg Leu Glu Arg 115 120

Asp Thr Leu Asp Arg Leu Leu Glu Leu Lys Leu Gln Asp Asn Glu Leu

Leu Tyr Leu Gly Lys Asn Arg Ile Arg His Ile Gln Pro Gly Ala Phe

135

Arg Ala Leu Pro Pro Leu Arg Leu Pro Arg Leu Leu Leu Asp Leu

Ser His Asn Ser Leu Leu Ala Leu Glu Pro Gly Ile Leu Asp Thr Ala 180 185

Asn Val Glu Ala Leu Arg Leu Ala Gly Leu Gly Leu Gln Gln Leu Asp Glu Gly Leu Phe Ser Arg Leu Arg Asn Leu His Asp Leu Asp Val Ser 215 Asp Asn Gln Leu Glu Arg Val Pro Pro Val Ile Arg Gly Leu Arg Gly 230 235 Leu Thr Arg Leu Arg Leu Ala Gly Asn Thr Arg Ile Ala Gln Leu Arg 250 Pro Glu Asp Leu Ala Gly Leu Ala Ala Leu Gln Glu Leu Asp Val Ser Asn Leu Ser Leu Gln Ala Leu Pro Gly Asp Leu Ser Gly Leu Phe Pro 280 285 Arg Leu Arg Leu Leu Ala Ala Ala Arg Asn Pro Phe Asn Cys Val Cys Pro Leu Ser Trp Phe Gly Pro Trp Val Arg Glu Ser His Val Thr Leu Ala Ser Pro Glu Glu Thr Arg Cys His Phe Pro Pro Lys Asn Ala Gly 325 330 Arg Leu Leu Glu Leu Asp Tyr Ala Asp Phe Gly Cys Pro Ala Thr 345 Thr Thr Thr Ala Thr Val Pro Thr Thr Arg Pro Val Val Arg Glu Pro 360 Thr Ala Leu Ser Ser Ser Leu Ala Pro Thr Trp Leu Ser Pro Thr Ala 375 Pro Ala Thr Glu Ala Pro Ser Pro Pro Ser Thr Ala Pro Pro Thr Val 390 395 Gly Pro Val Pro Gln Pro Gln Asp Cys Pro Pro Ser Thr Cys Leu Asn 410 Gly Gly Thr Cys His Leu Gly Thr Arg His His Leu Ala Cys Leu Cys Pro Glu Gly Phe Thr Gly Leu Tyr Cys Glu Ser Gln Met Gly Gln Gly 440 Thr Arg Pro Ser Pro Thr Pro Val Thr Pro Arg Pro Pro Arg Ser Leu 455 Thr Leu Gly Ile Glu Pro Val Ser Pro Thr Ser Leu Arg Val Gly Leu 470 Gln Arg Tyr Leu Gln Gly Ser Ser Val Gln Leu Arg Ser Leu Arg Leu 490 Thr Tyr Arg Asn Leu Ser Gly Pro Asp Lys Arg Leu Val Thr Leu Arg 510 Leu Pro Ala Ser Leu Ala Glu Tyr Thr Val Thr Gln Leu Arg Pro Asn Ala Thr Tyr Ser Val Cys Val Met Pro Leu Gly Pro Gly Arg Val Pro 535 540

<210> 100 <211> 386 <212> PRT

<213> Homo sapiens

<400> 100 Met Lys Phe Gln Gly Pro Leu Ala Cys Leu Leu Leu Ala Leu Cys Leu Gly Ser Gly Glu Ala Gly Pro Leu Gln Ser Gly Glu Glu Ser Thr Gly Thr Asn Ile Gly Glu Ala Leu Gly His Gly Leu Gly Asp Ala Leu Ser Glu Gly Val Gly Lys Ala Ile Gly Lys Glu Ala Gly Gly Ala Ala Gly Ser Lys Val Ser Glu Ala Leu Gly Gln Gly Thr Arg Glu Ala Val Gly Thr Gly Val Arg Gln Val Pro Gly Phe Gly Ala Ala Asp Ala Leu Gly Asn Arg Val Gly Glu Ala Ala His Ala Leu Gly Asn Thr Gly His Glu 105 Ile Gly Arg Gln Ala Glu Asp Val Ile Arg His Gly Ala Asp Ala Val 120 Arg Gly Ser Trp Gln Gly Val Pro Gly His Asn Gly Ala Trp Glu Thr 135 Ser Gly Gly His Gly Ile Phe Gly Ser Gln Gly Gly Leu Gly Gln Gln 150 Gly Gln Gly Asn Pro Gly Gly Leu Gly Thr Pro Trp Val His Gly Tyr

170

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Pro Gly Asn Ser Ala Gly Ser Phe Gly Met Asn Pro Gln Gly Ala Pro
                                185
Trp Gly Gln Gly Gly Asn Gly Gly Pro Pro Asn Phe Gly Thr Asn Thr
                            200
Gln Gly Ala Val Ala Gln Pro Gly Tyr Gly Ser Val Arg Ala Ser Asn
Gln Asn Glu Gly Cys Thr Asn Pro Pro Pro Ser Gly Ser Gly Gly
Ser Ser Asn Ser Gly Gly Gly Ser Gly Ser Gln Ser Gly Ser Ser Gly
Ser Gly Ser Asn Gly Asp Asn Asn Asn Gly Ser Ser Ser Gly Gly Ser
Ser Ser Gly Ser Ser Gly Gly Ser Ser Gly Gly Ser Ser Gly Gly
Ser Ser Gly Asn Ser Gly Gly Ser Arg Gly Asp Ser Gly Ser Glu Ser
Ser Trp Gly Ser Ser Thr Gly Ser Ser Ser Gly Asn His Gly Gly Ser
Gly Gly Gly Asn Gly His Lys Pro Gly Cys Glu Lys Pro Gly Asn Glu
Ala Arg Gly Ser Gly Glu Ser Gly Ile Gln Asn Ser Glu Thr Ser Pro
Gly Met Phe Asn Phe Asp Thr Phe Trp Lys Asn Phe Lys Ser Lys Leu
                            360
Gly Phe Ile Asn Trp Asp Ala Ile Asn Lys Asp Gln Arg Ser Ser Arg
Ile Pro
385
<210> 101
<211> 743
<212> PRT
<213> Homo sapiens
<400> 101
Met Asn Val Ser Trp Ile Ser Leu Arg Arg Arg Ser Phe Arg Ala Phe
Gly Arg Val Trp Thr Cys Ser Gly Leu Leu Gln Met Thr Ser Ile Lys
Gly Lys Leu Ser Leu Val Trp Gln Arg Leu Asp Gly His Phe Cys Arg
Thr Leu Glu Glu Ser Val Tyr Ser Ile Ala Ile Ser Leu Ala Gln Arg
Tyr Ser Val Ser Arg Trp Glu Val Phe Met Thr His Leu Glu Phe Leu 65 70 75 80
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Phe Thr Asp Ser Gly Leu Ser Thr Leu Glu Ile Glu Asn Arg Ala Gln

85 90 95 Asp Leu His Leu Phe Glu Thr Leu Lys Thr Asp Pro Glu Ala Phe His Gln His Met Val Lys Tyr Ile Tyr Pro Thr Ile Gly Gly Phe Asp His Glu Arg Leu Gln Tyr Tyr Phe Thr Leu Leu Glu Asn Cys Gly Cys Ala Asp Leu Gly Asn Cys Ala Ile Lys Pro Glu Thr His Ile Arg Leu Leu Lys Lys Phe Lys Val Val Ala Ser Gly Leu Asn Tyr Lys Lys Leu Thr 170 Asp Glu Asn Met Ser Pro Leu Glu Ala Leu Glu Pro Val Leu Ser Ser Gln Asn Ile Leu Ser Ile Ser Lys Leu Val Pro Lys Ile Pro Glu Lys Asp Gly Gln Met Leu Ser Pro Ser Ser Leu Tyr Thr Ile Trp Leu Gln Lys Leu Phe Trp Thr Gly Asp Pro His Leu Ile Lys Gln Val Pro Gly 230 Ser Ser Pro Glu Trp Leu His Ala Tyr Asp Val Cys Met Lys Tyr Phe Asp Arg Leu His Pro Gly Asp Leu Ile Thr Val Val Asp Ala Val Thr 265 Phe Ser Pro Lys Ala Val Thr Lys Leu Ser Val Glu Ala Arg Lys Glu Met Thr Arg Lys Ala Ile Lys Thr Val Lys His Phe Ile Glu Lys Pro Arg Lys Arg Asn Ser Glu Asp Glu Ala Gln Glu Ala Lys Asp Ser Lys Val Thr Tyr Ala Asp Thr Leu Asn His Leu Glu Lys Ser Leu Ala His Leu Glu Thr Leu Ser His Ser Phe Ile Leu Ser Leu Lys Asn Ser Glu 345 Gln Glu Thr Leu Gln Lys Tyr Ser His Leu Tyr Asp Leu Ser Arg Ser Glu Lys Glu Lys Leu His Asp Glu Ala Val Ala Ile Cys Leu Asp Gly Gln Pro Leu Ala Met Ile Gln Gln Leu Leu Glu Val Ala Val Gly Pro 390 Leu Asp Ile Ser Pro Lys Asp Ile Val Gln Ser Ala Ile Met Lys Ile 410

Ile Ser Ala Leu Ser Gly Gly Ser Ala Asp Leu Gly Gly Pro Arg Asp

Pro Leu Lys Val Leu Glu Gly Val Val Ala Ala Val His Ala Ser Val

445 435 440 Asp Lys Gly Glu Glu Leu Val Ser Pro Glu Asp Leu Leu Glu Trp Leu 455 Arg Pro Phe Cys Ala Asp Asp Ala Trp Pro Val Arg Pro Arg Ile His Val Leu Gln Ile Leu Gly Gln Ser Phe His Leu Thr Glu Glu Asp Ser 490 Lys Leu Leu Val Phe Phe Arg Thr Glu Ala Ile Leu Lys Ala Ser Trp 505 Pro Gln Arg Gln Val Asp Ile Ala Asp Ile Glu Asn Glu Glu Asn Arg Tyr Cys Leu Phe Met Glu Leu Leu Glu Ser Ser His His Glu Ala Glu Phe Gln His Leu Val Leu Leu Gln Ala Trp Pro Pro Met Lys Ser 550 Glu Tyr Val Ile Thr Asn Asn Pro Trp Val Arg Leu Ala Thr Val Met Leu Thr Arg Cys Thr Met Glu Asn Lys Glu Gly Leu Gly Asn Glu Val Leu Lys Met Cys Arg Ser Leu Tyr Asn Thr Lys Gln Met Leu Pro Ala Glu Gly Val Lys Glu Leu Cys Leu Leu Leu Leu Asn Gln Ser Leu Leu Leu Pro Ser Leu Lys Leu Leu Glu Ser Arg Asp Glu His Leu His Glu Met Ala Leu Glu Gln Ile Thr Ala Val Thr Thr Val Asn Asp Ser 650 Asn Cys Asp Gln Glu Leu Leu Ser Leu Leu Leu Asp Ala Lys Leu Leu Val Lys Cys Val Ser Thr Pro Phe Tyr Pro Arg Ile Val Asp His Leu Leu Ala Ser Leu Gln Gln Gly Arg Trp Asp Ala Glu Glu Leu Gly Arg His Leu Arg Glu Ala Gly His Glu Ala Glu Ala Gly Ser Leu Leu Ala Val Arg Gly Thr His Gln Ala Phe Arg Thr Phe Ser Thr Ala Leu 730

Arg Ala Ala Gln His Trp Val 740

<210> 102

<211> 235

<212> PRT

<213> Homo sapiens

<400> 102

Met Leu Asn Leu Gly Ser Trp Pro Gly Leu Val Ala Ala Ser Leu Phe Leu Leu Lys Gly Val Phe Ser Leu Phe Val Gln Leu Leu Lys Asn Pro Leu Gln His Pro Arg Asn Arg Ala Thr His Leu Leu Ala Thr Pro Gly Ala Arg Val Leu Gln Glu His Leu Ser Ile His Pro Val Cys His Gln Ser Gln Pro Pro Glu Ala Leu Ser Ser Thr Gln His Thr Gly Gln Pro Pro Gly Gln Pro Ser Ala Pro Ser Gln Leu Ser Ala Pro Arg Tyr 85 Ser Ser Ser Leu Ser Pro Ile Gln Ala Pro Asn His Pro Pro Pro Gln 105 Pro Pro Thr Gln Ala Thr Pro Leu Met His Thr Lys Pro Asn Ser Gln 120 Gly Pro Pro Asn Pro Met Ala Leu Pro Ser Glu His Gly Leu Glu Gln 130 135 Pro Ser His Thr Pro Pro Gln Thr Pro Thr Pro Pro Ser Thr Pro Pro 150 155 Leu Gly Lys Gln Asn Pro Ser Leu Pro Ala Pro Gln Thr Leu Ala Gly 170 Gly Asn Pro Glu Thr Ala Gln Pro His Ala Gly Thr Leu Pro Arg Pro Arg Pro Val Pro Lys Pro Arg Asn Arg Pro Ser Val Pro Pro Pro Pro 200 Gln Pro Pro Gly Val His Ser Ala Gly Asp Ser Ser Leu Thr Asn Thr 215 Ala Pro Thr Ala Ser Lys Ile Val Thr Asp Val

Met Tyr Ser Gly Asn Arg Ser Gly Gly His Gly Tyr Trp Asp Gly Gly 1 5 10 15

Gly Ala Gly Ala Glu Gly Pro Ala Pro Ala Gly Thr Leu Ser Pro 20 25 30

Ala Pro Leu Phe Ser Pro Gly Thr Tyr Glu Arg Leu Ala Leu Leu 35 40 45

Gly Ser Ile Gly Leu Leu Gly Val Gly Asn Asn Leu Leu Val Leu Val 50 55 60

Leu Tyr Tyr Lys Phe Gln Arg Leu Arg Thr Pro Thr His Leu Leu 65 70 75 80

<210> 103

<211> 402

<212> PRT

<213> Homo sapiens

<400> 103

Val Asn Ile Ser Leu Ser Asp Leu Leu Val Ser Leu Phe Gly Val Thr Phe Thr Phe Val Ser Cys Leu Arg Asn Gly Trp Val Trp Asp Thr Val Gly Cys Val Trp Asp Gly Phe Ser Gly Ser Leu Phe Gly Ile Val Ser 120 Ile Ala Thr Leu Thr Val Leu Ala Tyr Glu Arg Tyr Ile Arg Val Val His Ala Arg Val Ile Asn Phe Ser Trp Ala Trp Arg Ala Ile Thr Tyr Ile Trp Leu Tyr Ser Leu Ala Trp Ala Gly Ala Pro Leu Leu Gly Trp Asn Arg Tyr Ile Leu Asp Val His Gly Leu Gly Cys Thr Val Asp Trp Lys Ser Lys Asp Ala Asn Asp Ser Ser Phe Val Leu Phe Leu Phe Leu 200 Gly Cys Leu Val Val Pro Leu Gly Val Ile Ala His Cys Tyr Gly His 215 220 Ile Leu Tyr Ser Ile Arg Met Leu Arg Cys Val Glu Asp Leu Gln Thr Ile Gln Val Ile Lys Ile Leu Lys Tyr Glu Lys Lys Leu Ala Lys Met Cys Phe Leu Met Ile Phe Thr Phe Leu Val Cys Trp Met Pro Tyr Ile 260 265 Val Ile Cys Phe Leu Val Val Asn Gly His Gly His Leu Val Thr Pro 280 Thr Ile Ser Ile Val Ser Tyr Leu Phe Ala Lys Ser Asn Thr Val Tyr Asn Pro Val Ile Tyr Val Phe Met Ile Arg Lys Phe Arg Arg Ser Leu 310 315 Leu Gln Leu Leu Cys Leu Arg Leu Leu Arg Cys Gln Arg Pro Ala Lys Asp Leu Pro Ala Ala Gly Ser Glu Met Gln Ile Arg Pro Ile Val Met Ser Gln Lys Asp Gly Asp Arg Pro Lys Lys Lys Val Thr Phe Asn Ser 360 365 Ser Ser Ile Ile Phe Ile Ile Thr Ser Asp Glu Ser Leu Ser Val Asp Asp Ser Asp Lys Thr Asn Gly Ser Lys Val Asp Val Ile Gln Val Arg 395 Pro Leu

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<211> 101
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<212> PRT

<213> Homo sapiens

<400> 104

Met Lys Gln Arg Leu Arg Gly Gln Gln Gly Phe Gln Leu Asp Val Cys
1 5 10 15

Val Ala Cys Thr Leu Leu Phe Leu Leu Leu Thr Val Asn Ser Gly Val 20 25 30

Thr Ser Arg Glu Gln Leu Gly Cys Ser Arg Pro Ser Pro Ala Gln Gly 35 40 45

Glu Gly Arg Gly Thr Cys Ser Ser Glu Gln Pro Glu Gly Gly Gly Arg
50 60

Ser Glu Val Val Glu Trp Phe Val Tyr Leu Thr Gly Leu Lys Gly Pro 65 70 75 80

Ser Val Phe Val Val Cys Phe Val Ser Cys Phe Ser Asp Arg Ser Ile 85 90 95

Thr Thr Asp Leu Leu 100

<210> 105

<211> 185

<212> PRT

<213> Homo sapiens

<400> 105

Met Lys Phe Thr Ile Val Phe Ala Gly Leu Leu Gly Val Phe Leu Ala 1 5 10 15

Pro Ala Leu Ala Asn Tyr Asn Ile Asn Val Asn Asp Asp Asn Asn Asn 20 25 30

Ala Gly Ser Gly Gln Gln Ser Val Ser Val Asn Asn Glu His Asn Val 35 40 45

Ala Asn Val Asp Asn Asn Asn Gly Trp Asp Ser Trp Asn Ser Ile Trp 50 60

Asp Tyr Gly Asn Gly Phe Ala Ala Thr Arg Leu Phe Gln Lys Lys Thr 65 70 75 80

Cys Ile Val His Lys Met Asn Lys Glu Val Met Pro Ser Ile Gln Ser 85 90 95

Leu Asp Ala Leu Val Lys Glu Lys Lys Leu Gln Gly Lys Gly Pro Gly 100 105 110

Gly Pro Pro Pro Lys Gly Leu Met Tyr Ser Val Asn Pro Asn Lys Val 115 120 125

Asp Asp Leu Ser Lys Phe Gly Lys Asn Ile Ala Asn Met Cys Arg Gly 130 140

Ile Pro Thr Tyr Met Ala Glu Glu Met Gln Glu Ala Ser Leu Phe145150155160

Tyr Ser Gly Thr Cys Tyr Thr Thr Ser Val Leu Trp Ile Val Asp Ile 165 170 175 Ser Phe Cys Gly Asp Thr Val Glu Asn 180 185

<210> 106

<211> 231

<212> PRT

<213> Homo sapiens

<400> 106

Met Ser Arg Ala Met Ala Leu Phe Phe Val Leu Cys Trp Ile Gln Gly
1 5 10 15

Tyr Ser Gln Gln Lys Ser Leu Asn Asn Ala Ala Phe Ala Ser Gly Ser 20 25 30

Asn Glu Arg Glu Glu His Leu Ala Lys Ile Phe Asp Glu Ile Leu Leu 35 40 45

Gln Val Phe Pro Lys Phe Pro Tyr Asp Pro Ser Phe Asn Glu Ala Thr 50 55 60

Ala Val Arg Ser Ile Thr Lys Thr Asp Met Arg Lys Gly Thr Ser Ile 65 70 75 80

Ala Trp Asn Ser Pro Lys Pro Glu Tyr Phe Leu Gly Ser Val Asp Lys 85 90 95

Ile Pro Asp Lys Asp His Leu Ser Glu Glu Lys Asn Phe Lys Glu Ser 100 105 110

Cys Leu Phe Asp Arg Asp Leu Arg Glu Gln Leu Thr Thr Ile Asp Lys 115 120 125

Glu Thr Leu Gln Gly Ala Ala Lys Pro Asp Ala His Phe Arg Thr Met 130 135 140

Pro Cys Gly Gln Leu Leu His Phe Leu Gln Arg Asn Thr Ile Ile Ala 145 150 155 160

Thr Val Ser Gly Val Ala Ile Leu Met Ala Ile Val Leu Leu Leu 165 170 175

Gly Leu Ala Ser Tyr Ile Arg Lys Lys Gln Pro Ser Ser Pro Leu Ala 180 185 190

Asn Thr Thr Tyr Asn Ile Phe Ile Met Asp Gly Lys Thr Trp Trp His 195 200 205

Asn Ser Glu Glu Lys Asn Phe Thr Lys Leu Ala Lys Lys Gln Lys Gln 210 215 220

Leu Lys Ser Ser Ser Cys Val 225 230

<210> 107

<211> 136

<212> PRT

<213> Homo sapiens

<400> 107

Met Ala Ser Leu Gly Leu Leu Leu Leu Leu Leu Thr Ala Leu Pro 1 5 10 15

Pro Leu Trp Ser Ser Ser Leu Pro Gly Leu Asp Thr Ala Glu Ser Lys

Ala Thr Ile Ala Asp Leu Ile Leu Ser Ala Leu Glu Arg Ala Thr Val 40 Phe Leu Glu Gln Arg Leu Pro Glu Ile Asn Leu Asp Gly Met Val Gly Val Arg Val Leu Glu Glu Gln Leu Lys Ser Val Arg Glu Lys Trp Ala Gln Glu Pro Leu Leu Gln Pro Leu Ser Leu Arg Val Gly Met Leu Gly Glu Lys Leu Glu Ala Ala Ile Gln Arg Ser Leu His Tyr Leu Lys Leu Ser Asp Pro Lys Tyr Leu Arg Gly Arg Thr Ala Ala Ser Pro Ala Ala 120

Ser Gln Thr Ser Ala Gly Ala Ser 130

<210> 108 <211> 606

<212> PRT

<213> Homo sapiens

<400> 108

Met Thr Val Val Gly Asn Pro Arg Ser Trp Ser Cys Gln Trp Leu Pro 1 10 15

Ile Leu Ile Leu Leu Gly Thr Gly His Gly Pro Gly Val Glu Gly

Val Thr His Tyr Lys Ala Gly Asp Pro Val Ile Leu Tyr Val Asn Lys

Val Gly Pro Tyr His Asn Pro Gln Glu Thr Tyr His Tyr Tyr Gln Leu

Pro Val Cys Cys Pro Glu Lys Ile Arg His Lys Ser Leu Ser Leu Gly

Glu Val Leu Asp Gly Asp Arg Met Ala Glu Ser Leu Tyr Glu Ile Arg

Phe Arg Glu Asn Val Glu Lys Arg Ile Leu Cys His Met Gln Leu Ser 105

Ser Ala Gln Val Glu Gln Leu Arg Gln Ala Ile Glu Glu Leu Tyr Tyr

Phe Glu Phe Val Val Asp Asp Leu Pro Ile Arg Gly Phe Val Gly Tyr 135 140

Met Glu Glu Ser Gly Phe Leu Pro His Ser His Lys Ile Gly Leu Trp 155 160

Thr His Leu Asp Phe His Leu Glu Phe His Gly Asp Arg Ile Ile Phe

Ala Asn Val Ser Val Arg Asp Val Lys Pro His Ser Leu Asp Gly Leu 180 185

Arg Pro Asp Glu Phe Leu Gly Leu Thr His Thr Tyr Ser Val Arg Trp Ser Glu Thr Ser Val Glu Arg Arg Ser Asp Arg Arg Gly Asp Asp Gly Gly Phe Phe Pro Arg Thr Leu Glu Ile His Trp Leu Ser Ile Ile 230 235 Asn Ser Met Val Leu Val Phe Leu Leu Val Gly Phe Val Ala Val Ile Leu Met Arg Val Leu Arg Asn Asp Leu Ala Arg Tyr Asn Leu Asp Glu Glu Thr Thr Ser Ala Gly Ser Gly Asp Asp Phe Asp Gln Gly Asp Asn 280 Gly Trp Lys Ile Ile His Thr Asp Val Phe Arg Phe Pro Pro Tyr Arg Gly Leu Leu Cys Ala Val Leu Gly Val Gly Ala Gln Phe Leu Ala Leu Gly Thr Gly Ile Ile Val Met Ala Leu Leu Gly Met Phe Asn Val His 325 330 Arg His Gly Ala Ile Asn Ser Ala Ala Ile Leu Leu Tyr Ala Leu Thr 345 Cys Cys Ile Ser Gly Tyr Val Ser Ser His Phe Tyr Arg Gln Ile Gly Gly Glu Arg Trp Val Trp Asn Ile Ile Leu Thr Thr Ser Leu Phe Ser Val Pro Phe Phe Leu Thr Trp Ser Val Val Asn Ser Val His Trp Ala 390 395 Asn Gly Ser Thr Gln Ala Leu Pro Ala Thr Thr Ile Leu Leu Leu Leu 410 Thr Val Trp Leu Leu Val Gly Phe Pro Leu Thr Val Ile Gly Gly Ile Phe Gly Lys Asn Asn Ala Ser Pro Phe Asp Ala Pro Cys Arg Thr Lys 440 Asn Ile Ala Arg Glu Ile Pro Pro Gln Pro Trp Tyr Lys Ser Thr Val 455 Ile His Met Thr Val Gly Gly Phe Leu Pro Phe Ser Ala Ile Ser Val Glu Leu Tyr Tyr Ile Phe Ala Thr Val Trp Gly Arg Glu Gln Tyr Thr 490 Leu Tyr Gly Ile Leu Phe Phe Val Phe Ala Ile Leu Leu Ser Val Gly 505 Ala Cys Ile Ser Ile Ala Leu Thr Tyr Phe Gln Leu Ser Gly Glu Asp Tyr Arg Trp Trp Arg Ser Val Leu Ser Val Gly Ser Thr Gly Leu 530 535

Phe Ile Phe Leu Tyr Ser Val Phe Tyr Tyr Ala Arg Arg Ser Asn Met 545 550 560

Ser Gly Ala Val Gln Thr Val Glu Phe Phe Gly Tyr Ser Leu Leu Thr 565 570 575

Gly Tyr Val Phe Phe Leu Met Leu Gly Thr Ile Ser Phe Phe Ser Ser 580 585 590

Leu Lys Phe Ile Arg Tyr Ile Tyr Val Asn Leu Lys Met Asp 595 600

<210> 109

<211> 310

<212> PRT

<213> Homo sapiens

<400> 109

Met Ala Leu Arg Arg Pro Pro Arg Leu Arg Leu Cys Ala Arg Leu Pro 1 5 10 15

Asp Phe Phe Leu Leu Leu Phe Arg Gly Cys Leu Ile Gly Ala Val 20 25 30

Asn Leu Lys Ser Ser Asn Arg Thr Pro Val Val Glu Glu Phe Glu Ser 35 40 45

Val Glu Leu Ser Cys Ile Ile Thr Asp Ser Gln Thr Ser Asp Pro Arg
50 55 60

Ile Glu Trp Lys Lys Ile Gln Asp Glu Gln Thr Thr Tyr Val Phe Phe 65 70 75 80

Asp Asn Lys Ile Gln Gly Asp Leu Ala Gly Arg Ala Glu Ile Leu Gly 85 90 95

Lys Thr Ser Leu Lys Ile Trp Asn Val Thr Arg Arg Asp Ser Ala Leu 100 105 110

Tyr Arg Cys Glu Val Val Ala Arg Asn Asp Arg Lys Glu Ile Asp Glu 115 120 125

Ile Val Ile Glu Leu Thr Val Gln Val Lys Pro Val Thr Pro Val Cys 130 135 140

Arg Val Pro Lys Ala Val Pro Val Gly Lys Met Ala Thr Leu His Cys 145 150 155 160

Gln Glu Ser Glu Gly His Pro Arg Pro His Tyr Ser Trp Tyr Arg Asn 165 170 175

Asp Val Pro Leu Pro Thr Asp Ser Arg Ala Asn Pro Arg Phe Arg Asn 180 185 190

Ser Ser Phe His Leu Asn Ser Glu Thr Gly Thr Leu Val Phe Thr Ala 195 200 205

Val His Lys Asp Asp Ser Gly Gln Tyr Tyr Cys Ile Ala Ser Asn Asp 210 220

Ala Gly Ser Ala Arg Cys Glu Glu Gln Glu Met Glu Val Tyr Asp Leu 225 230 235 240

Asn Ile Gly Gly Ile Ile Gly Gly Val Leu Val Val Leu Ala Val Leu 245 250 255

Ala Leu Ile Thr Leu Gly Ile Cys Cys Ala Tyr Arg Arg Gly Tyr Phe

Ile Asn Asn Lys Gln Asp Gly Glu Ser Tyr Lys Asn Pro Gly Lys Pro

Asp Gly Val Asn Tyr Ile Arg Thr Asp Glu Gly Asp Phe Arg His 295 300

Lys Ser Ser Phe Val Ile

<210> 110

<211> 247 <212> PRT

<213> Homo sapiens

<400> 110

Met Glu Lys Cys Leu Gln Asp Phe Cys Leu Pro Phe Leu Arg Ile Thr

Ser Leu Leu Gln His His Leu Phe Gly Glu Asp Leu Pro Ser Cys Gln

Glu Glu Glu Glu Phe Ser Val Leu Ala Ser Cys Leu Gly Leu Leu Pro

Thr Phe Tyr Gln Thr Glu His Pro Phe Ile Ser Ala Ser Cys Leu Asp

Trp Pro Val Pro Ala Phe Asp Ile Ile Thr Gln Trp Cys Phe Glu Ile

Lys Ser Phe Thr Glu Arg His Ala Glu Gln Gly Lys Ala Leu Leu Ile

Gln Glu Ser Lys Trp Lys Leu Pro His Leu Leu Gln Leu Pro Glu Asn

Tyr Asn Thr Ile Phe Gln Tyr Tyr His Arg Lys Thr Cys Ser Val Cys 115 120 125

Thr Lys Val Pro Lys Asp Pro Ala Val Cys Leu Val Cys Gly Thr Phe

Val Cys Leu Lys Gly Leu Cys Cys Lys Gln Gln Ser Tyr Cys Glu Cys

Val Leu His Ser Gln Asn Cys Gly Ala Gly Thr Gly Ile Phe Leu Leu

Ile Asn Ala Ser Val Ile Ile Ile Ile Arg Gly His Arg Phe Cys Leu

Trp Gly Ser Val Tyr Leu Asp Ala His Gly Glu Glu Asp Arg Asp Leu

Arg Arg Gly Lys Pro Leu Tyr Ile Cys Lys Glu Arg Tyr Lys Val Leu

Glu Gln Gln Trp Ile Ser His Thr Phe Asp His Ile Asn Lys Arg Trp 235 240

Gly Pro His Tyr Asn Gly Leu

290

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<210> 111
<211> 559
<212> PRT
<213> Homo sapiens
<400> 111
Met Val Leu Leu His Trp Cys Leu Leu Trp Leu Leu Phe Pro Leu Ser
Ser Arg Thr Gln Lys Leu Pro Thr Arg Asp Glu Glu Leu Phe Gln Met
Gln Ile Arg Asp Lys Ala Phe Phe His Asp Ser Ser Val Ile Pro Asp
Gly Ala Glu Ile Ser Ser Tyr Leu Phe Arg Asp Thr Pro Lys Arg Tyr
Phe Phe Val Val Glu Glu Asp Asn Thr Pro Leu Ser Val Thr Val Thr
Pro Cys Asp Ala Pro Leu Glu Trp Lys Leu Ser Leu Gln Glu Leu Pro
                                     90
Glu Asp Arg Ser Gly Glu Gly Ser Gly Asp Leu Glu Pro Leu Glu Gln
                                105
Gln Lys Gln Gln Ile Ile Asn Glu Glu Gly Thr Glu Leu Phe Ser Tyr
Lys Gly Asn Asp Val Glu Tyr Phe Ile Ser Ser Ser Pro Ser Gly
                        135
Leu Tyr Gln Leu Asp Leu Leu Ser Thr Glu Lys Asp Thr His Phe Lys
                    150
Val Tyr Ala Thr Thr Pro Glu Ser Asp Gln Pro Tyr Pro Glu Leu
                165
Pro Tyr Asp Pro Arg Val Asp Val Thr Ser Leu Gly Arg Thr Thr Val
Thr Leu Ala Trp Lys Pro Ser Pro Thr Ala Ser Leu Leu Lys Gln Pro
                            200
Ile Gln Tyr Cys Val Val Ile Asn Lys Glu His Asn Phe Lys Ser Leu
                        215
Cys Ala Val Glu Ala Lys Leu Ser Ala Asp Asp Ala Phe Met Met Ala
Pro Lys Pro Gly Leu Asp Phe Ser Pro Phe Asp Phe Ala His Phe Gly
                                    250
Phe Pro Ser Asp Asn Ser Gly Lys Glu Arg Ser Phe Gln Ala Lys Pro
                                265
Ser Pro Lys Leu Gly Arg His Val Tyr Ser Arg Pro Lys Val Asp Ile
```

Gln Lys Ile Cys Ile Gly Asn Lys Asn Ile Phe Thr Val Ser Asp Leu

Lys Pro Asp Thr Gln Tyr Tyr Phe Asp Val Phe Val Val Asn Ile Asn Ser Asn Met Ser Thr Ala Tyr Val Gly Thr Phe Ala Arg Thr Lys Glu 330 Glu Ala Lys Gln Lys Thr Val Glu Leu Lys Asp Gly Lys Ile Thr Asp 345 350 Val Phe Val Lys Arg Lys Gly Ala Lys Phe Leu Arg Phe Ala Pro Val Ser Ser His Gln Lys Val Thr Phe Phe Ile His Ser Cys Leu Asp Ala Val Gln Ile Gln Val Arg Arg Asp Gly Lys Leu Leu Ser Gln Asn 390 395 Val Glu Gly Ile Gln Gln Phe Gln Leu Arg Gly Lys Pro Lys Ala Lys Tyr Leu Val Arg Leu Lys Gly Asn Lys Lys Gly Ala Ser Met Leu Lys Ile Leu Ala Thr Thr Arg Pro Thr Lys Gln Ser Phe Pro Ser Leu Pro 435 440 Glu Asp Thr Arg Ile Lys Ala Phe Asp Lys Leu Arg Thr Cys Ser Ser 455 Ala Thr Val Ala Trp Leu Gly Thr Gln Glu Arg Asn Lys Phe Cys Ile 470 Tyr Lys Lys Glu Val Asp Asp Asn Tyr Asn Glu Asp Gln Lys Lys Arg 485 Glu Gln Asn Gln Cys Leu Gly Pro Asp Ile Arg Lys Lys Ser Glu Lys 505 Val Leu Cys Lys Tyr Phe His Ser Gln Asn Leu Gln Lys Ala Val Thr 520 Thr Glu Thr Ile Lys Gly Leu Gln Pro Gly Lys Ser Leu Pro Ala Gly Cys Leu Cys His Arg Thr Trp Gly Ala Leu Cys Lys Val Ser Glu

<400> 112

Met Ser Pro Ser His Ser Pro Val Ser Cys Phe Lys Leu Arg Val Leu 1 5 10 15

Val Phe Pro Leu Pro Leu Phe Leu Gly Thr Ala Leu Cys Ser Val Trp 20 25 30

Asp Pro Arg Ala Arg Pro Leu Gly Leu Val Ala Ala Ala Arg Pro Leu
35 40

Gly Pro Ser Thr Cys Pro Ser Pro Arg Phe Pro Ala Ser Ser Ala Gly 50 55 60

<210> 112

<211> 71

<212> PRT

<213> Homo sapiens

Thr Leu Lys Leu Arg Ala Arg

<210> 113

<211> 158 <212> PRT

<213> Homo sapiens

<400> 113

Met Ala Leu Glu Val Leu Met Leu Leu Ala Val Leu Ile Trp Thr Gly

Ala Glu Asn Leu His Val Lys Ile Ser Cys Ser Leu Asp Trp Leu Met

Val Ser Val Ile Pro Val Ala Glu Ser Arg Asn Leu Tyr Ile Phe Ala

Asp Glu Leu His Leu Gly Met Gly Cys Pro Ala Asn Arg Ile His Thr

Tyr Val Tyr Glu Phe Ile Tyr Leu Val Arg Asp Cys Gly Ile Arg Thr

Arg Val Val Ser Glu Glu Thr Leu Leu Phe Gln Thr Glu Leu Tyr Phe

Thr Pro Arg Asn Ile Asp His Asp Pro Gln Glu Ile His Leu Glu Cys

Ser Thr Ser Arg Lys Ser Val Trp Leu Thr Pro Val Ser Thr Glu Asn

Glu Ile Lys Leu Asp Pro Ser Pro Phe Ile Ala Asp Phe Gln Thr Thr 140

Ala Glu Glu Leu Gly Leu Leu Ser Ser Pro Asn Leu Leu

<210> 114 <211> 170

<212> PRT

<213> Homo sapiens

<400> 114

Met Ile Leu Thr Met Leu Leu Met Leu Lys Leu Cys Thr Glu Val Arg

Val Ala Asn Glu Leu Asn Ala Arg Arg Ser Phe Thr Asp Phe Asp

Pro His His Phe Trp Gln Trp Ser Ser Phe Ser Asp Tyr Val Gln Cys

Val Leu Ala Phe Thr Gly Val Ala Gly Tyr Ile Thr Tyr Leu Ser Ile

Asp Ser Ala Leu Phe Val Glu Thr Leu Gly Phe Leu Ala Val Leu Thr

Glu Ala Met Leu Gly Val Pro Gln Leu Tyr Arg Asn His Arg His Gln 90

Ser Thr Glu Gly Met Ser Ile Lys Met Val Leu Met Trp Thr Ser Gly 100 105 110

Asp Ala Phe Lys Thr Ala Tyr Phe Leu Leu Lys Gly Ala Pro Leu Gln
115 120 125

Phe Ser Val Cys Gly Leu Leu Gln Val Leu Val Asp Leu Ala Ile Leu 130 135 140

Gly Gln Ala Tyr Ala Phe Ala Arg His Pro Gln Lys Pro Ala Pro His 145 150 155 160

Ala Val His Pro Thr Gly Thr Lys Ala Leu 165 170

<210> 115

<211> 354

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (10)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 115

Met Ala Gly Pro Arg Leu Leu Phe Leu Xaa Ala Leu Ala Leu Glu Leu 1 5 10 15

Leu Gly Arg Ala Gly Gly Ser Gln Pro Ala Leu Arg Ser Arg Gly Thr 20 25 30

Ala Thr Ala Cys Arg Leu Asp Asn Lys Glu Ser Glu Ser Trp Gly Ala 35 40 45

Leu Leu Ser Gly Glu Arg Leu Asp Thr Trp Ile Cys Ser Leu Leu Gly 50 60

Ser Leu Met Val Gly Leu Ser Gly Val Phe Pro Leu Leu Val Ile Pro 65 70 75 80

Leu Glu Met Gly Thr Met Leu Arg Ser Glu Ala Gly Ala Trp Arg Leu 85 90 95

Lys Gln Leu Leu Ser Phe Ala Leu Gly Gly Leu Leu Gly Asn Val Phe $100 \hspace{1cm} 105 \hspace{1cm} 110$

Leu His Leu Leu Pro Glu Ala Trp Ala Tyr Thr Cys Ser Ala Ser Pro 115 120 125

Gly Gly Glu Gly Gln Ser Leu Gln Gln Gln Gln Leu Gly Leu Trp 130 135 140

Val Ile Ala Gly Ile Leu Thr Phe Leu Ala Leu Glu Lys Met Phe Leu 145 150 155 160

Asp Ser Lys Glu Glu Gly Thr Ser Gln Ala Pro Asn Lys Asp Pro Thr 165 170

Ala Ala Ala Ala Leu Asn Gly Gly His Cys Leu Ala Gln Pro Ala 180 185 190

Ala Glu Pro Gly Leu Gly Ala Val Val Arg Ser Ile Lys Val Ser Gly 195 200 205

<210> 116 <211> 145 <212> PRT

Val Asp

<213> Homo sapiens

Arg Pro Glu Glu Tyr Thr Gly Asp Gln Arg Gly Ile Asp Asn Pro Ala 130 135 140

Phe 145

```
<210> 117
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<213> Homo sapiens

<400> 117

Met Leu Arg Leu Thr Gln Thr Phe Phe Ile Ser Gln Thr Leu Leu

Asp Trp Phe Leu Ala Ala Ala Leu Ala Leu Pro Asn Leu Cys Ser Pro 20

Leu Ala Ser Asn Phe Lys Ser Arg Gln Ile Ser Ser Val Pro Ile Gln

Pro Ser Gln Gly Thr Ser Arg Val Ala Leu Gln Ile Trp Cys Gly Ser

Cys Arg Met Arg Met Ser Ser Ser Thr Ile His Ile Leu Ala Leu

<210> 118 <211> 82

<212> PRT

<213> Homo sapiens

<400> 118

Met Leu Leu Gln Ser Leu Phe Phe Pro Met Ser Trp Gly Ser Gly 10

Gly Gly Lys Gly Arg Asp Leu Pro Arg Glu Lys Pro Thr Thr

Cys Pro Val Phe Asp Arg Leu Phe Asp Ile Phe Ala Lys Ile Pro Leu

Val Glu Ser Gln Ala Ser Cys Ala Arg Ile Gly Ile Ala Ala Ser His $50 \hspace{1.5cm} 55 \hspace{1.5cm} 60$

Trp Arg Leu Asp Cys Ser Val Asp Gly Met Gln Ala Asp Cys Leu Ser

Leu Ile

<210> 119

<211> 347

<212> PRT

<213> Homo sapiens

<400> 119

Met Val Thr Arg Ala Gly Ala Gly Thr Ala Val Ala Gly Ala Val Val

Val Ala Leu Leu Ser Ala Ala Leu Ala Leu Tyr Gly Pro Pro Leu Asp

Ala Val Leu Glu Arg Ala Phe Ser Leu Arg Lys Ala His Ser Ile Lys 40

Asp Met Glu Asn Thr Leu Gln Leu Val Arg Asn Ile Ile Pro Pro Leu 50

<211> 79

<212> PRT

Ser Ser Thr Lys His Lys Gly Gln Asp Gly Arg Ile Gly Val Val Gly Gly Cys Gln Glu Tyr Thr Gly Ala Pro Tyr Phe Ala Ala Ile Ser Ala Leu Lys Val Gly Ala Asp Leu Ser His Val Phe Cys Ala Ser Ala Ala 105 110 Ala Pro Val Ile Lys Ala Tyr Ser Pro Glu Leu Ile Val His Pro Val Leu Asp Ser Pro Asn Ala Val His Glu Val Glu Lys Trp Leu Pro Arg Leu His Ala Leu Val Val Gly Pro Gly Leu Gly Arg Asp Asp Ala Leu 150 155 Leu Arg Asn Val Gln Gly Ile Leu Glu Val Ser Lys Ala Arg Asp Ile 170 Pro Val Val Ile Asp Ala Asp Gly Leu Trp Leu Val Ala Gln Gln Pro Ala Leu Ile His Gly Tyr Arg Lys Ala Val Leu Thr Pro Asn His Val 200 205 Glu Phe Ser Arg Leu Tyr Asp Ala Val Leu Arg Gly Pro Met Asp Ser Asp Asp Ser His Gly Ser Val Leu Arg Leu Ser Gln Ala Leu Gly Asn Val Thr Val Val Gln Lys Gly Glu Arg Asp Ile Leu Ser Asn Gly Gln 250 Gln Val Leu Val Cys Ser Gln Glu Gly Ser Ser Arg Arg Cys Gly Gly 265 Gln Gly Asp Leu Leu Ser Gly Ser Leu Gly Val Leu Val His Trp Ala Leu Leu Ala Gly Pro Gln Lys Thr Asn Gly Ser Ser Pro Leu Leu Val 295 300 Ala Ala Phe Gly Ala Cys Ser Leu Thr Arg Gln Cys Asn His Gln Ala 315 Phe Gln Lys His Gly Arg Ser Thr Thr Thr Ser Asp Met Ile Ala Glu Val Gly Ala Ala Phe Ser Lys Leu Phe Glu Thr 340 345

Phe Pro Ile Val Leu Gly Ile Leu Val Tyr Gly Leu Ser Leu Leu Cys

<210> 120

<211> 163

<212> PRT

<213> Homo sapiens

<400> 120

Met Ser Ser Arg Leu Ile Tyr Thr Leu Arg Cys Gly Val Phe Ala Thr $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$

20 25 30

Phe Ser Ala Leu Arg Pro Phe Gly Glu Pro Arg Arg Glu Val Glu Ile
His Arg Arg Tyr Val Ala Gln Ser Val Gln Leu Phe Ile Leu Tyr Phe
50 Asn Leu Ala Val Leu Ser Thr Tyr Leu Pro Gln Asp Thr Leu Lys
65 Asn Leu Pro Leu Leu Thr Gly Leu Phe Ala Val Ser Arg Leu Ile Tyr
90 Arg Gly Phe Gly Tyr Gly
100 Asp Thr Leu Tyr Gly
Leu Thr Phe Ala Val Gly Arg Ser Phe Arg Gly Phe Gly Tyr Gly
115 Asp Tyr Pro Asp His Ala Arg Ser Ala Ser Asp Tyr Arg Pro Arg

Leu Asp Tyr Pro Asp His Ala Arg Ser Ala Ser Asp Tyr Arg Pro Arg 145 150 155 160

Pro Trp Gly

<210> 121 <211> 258 <212> PRT <213> Homo sapiens

<400> 121

Met Tyr Ile Trp Phe Ile Ile Phe Phe Ile Gln Pro His Lys Glu Glu 1 15

Arg Phe Leu Phe Pro Val Tyr Pro Leu Ile Cys Leu Cys Gly Ala Val 20 25 30

Ala Leu Ser Ala Leu Gln Lys Cys Tyr His Phe Val Phe Gln Arg Tyr 35 40 45

Arg Leu Glu His Tyr Thr Val Thr Ser Asn Trp Leu Ala Leu Gly Thr 50 60

Val Phe Leu Phe Gly Leu Leu Ser Phe Ser Arg Ser Val Ala Leu Phe 65 70 75 80

Arg Gly Tyr His Gly Pro Leu Asp Leu Tyr Pro Glu Phe Tyr Arg Ile 85 90 95

Ala Thr Asp Pro Thr Ile His Thr Val Pro Glu Gly Arg Pro Val Asn 100 105 110

Val Cys Val Gly Lys Glu Trp Tyr Arg Phe Pro Ser Ser Phe Leu Leu 115 120 125

Pro Asp Asn Trp Gln Leu Gln Phe Ile Pro Ser Glu Phe Arg Gly Gln 130 135 140

Leu Pro Lys Pro Phe Ala Glu Gly Pro Leu Ala Thr Arg Ile Val Pro 145 150 155 160

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Thr Asp Met Asn Asp Gln Asn Leu Glu Glu Pro Ser Arg Tyr Ile Asp 165 170 175
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Ile Ser Lys Cys His Tyr Leu Val Asp Leu Asp Thr Met Arg Glu Thr 180 185 190

Pro Arg Glu Pro Lys Tyr Ser Ser Asn Lys Glu Glu Trp Ile Ser Leu 195 200 205

Ala Tyr Arg Pro Phe Leu Asp Ala Ser Arg Ser Ser Lys Leu Leu Arg 210 215 220

Ala Phe Tyr Val Pro Phe Leu Ser Asp Gln Tyr Thr Val Tyr Val Asn 225 230 235 240

Tyr Thr Ile Leu Lys Pro Arg Lys Ala Lys Gln Ile Arg Lys Lys Ser 245 250 255

Gly Gly

<210> 122

<211> 96

<212> PRT

<213> Homo sapiens

<400> 122

Met Ala Arg Ala Cys Val Phe Gln Leu Ser Leu Trp Arg Lys Leu Pro 1 5 10 15

Val Gly Ile Asn Leu Ser Pro Ala Ile Leu Ser Leu Ser Leu Gly Cys 20 25 30

Leu Gly Leu Gly Phe Leu Leu Leu Glu Arg Met Thr Thr Asp Ser 35 40 45

Gly Ile Arg Gln Arg Ser Arg His Asp Leu Leu Gly Phe Cys Gly Cys 50 55 60

Gln His Cys Arg Ser Phe Trp Arg Leu Arg Glu Ala Leu Glu Gly Ile 65 70 75 80

Gly Thr Ser Cys Cys Arg Pro Pro Gly Arg Ala Gly Leu Phe Ile Phe 85 90 95

<210> 123

<211> 72

<212> PRT

<213> Homo sapiens

<400> 123

Met Arg His Thr Cys Ile Val Asn Ile Ala Ala Ser Leu Leu Val Ala 1 5 10 15

Asn Thr Trp Phe Ile Val Val Ala Ala Ile Gln Asp Asn Arg Tyr Ile 20 25 30

Leu Cys Lys Thr Ala Cys Val Ala Ala Thr Phe Phe Ile His Phe Phe 35 40 45

Tyr Leu Ser Val Phe Phe Trp Met Leu Thr Leu Gly Pro His Ala Val

50 55 60

Leu Ser Pro Gly Phe His Ser Ala 70

<210> 124 <211> 275

<212> PRT

<213> Homo sapiens

<400> 124

Met Thr Ile Thr Ser Phe Tyr Ala Val Cys Phe Tyr Leu Leu Met Leu

Val Met Val Glu Gly Phe Gly Gly Lys Glu Ala Val Leu Arg Thr Leu

Arg Asp Thr Pro Met Met Val His Thr Gly Pro Cys Cys Cys Cys

Pro Cys Cys Pro Arg Leu Leu Leu Thr Arg Lys Leu Gln Leu Leu 55

Met Leu Gly Pro Phe Gln Tyr Ala Phe Leu Lys Ile Thr Leu Thr Leu

Val Gly Leu Phe Leu Ile Pro Asp Gly Ile Tyr Asp Pro Ala Asp Ile

Ser Glu Gly Ser Thr Ala Leu Trp Ile Asn Thr Phe Leu Gly Val Ser

Thr Leu Leu Ala Leu Trp Thr Leu Gly Ile Ile Ser Arg Gln Ala Arg

Leu His Leu Gly Glu Gln Asn Met Gly Ala Lys Phe Ala Leu Phe Gln 135

Val Leu Leu Ile Leu Thr Ala Leu Gln Pro Ser Ile Phe Ser Val Leu 150 155

Ala Asn Gly Gly Gln Ile Ala Cys Ser Pro Pro Tyr Ser Ser Lys Thr

Arg Ser Gln Val Met Asn Cys His Leu Leu Ile Leu Glu Thr Phe Leu 185

Met Thr Val Leu Thr Arg Met Tyr Tyr Arg Arg Lys Asp His Lys Val

Gly Tyr Glu Thr Phe Ser Ser Pro Asp Leu Asp Leu Asn Ser Lys Pro

Lys Val Asp Gly Leu Asp Asn Glu Arg Met Leu Tyr Ser Leu Glu Tyr 230

Lys Ile Pro Leu Leu Ser Leu Asn Leu Asp Gln Met Gly Ser Ile Pro 245 250

Pro Cys Gln His Lys Leu Ala Asp Thr Phe Asp Ser Thr Asp Glu Gly 265

Glu Gln Cys

275

<210> 125

<211> 627

<212> PRT

<213> Homo sapiens

<400> 125

Met Glu Ala Arg Val Val His Ala Leu Gln Lys Arg Gln Val Ser Leu 1 5 10 15

Leu Cys Val Phe Leu Gly Val Ser Trp Ala Gly Ala Glu Pro Leu Arg 20 25 30

Tyr Phe Val Ala Glu Glu Thr Glu Arg Gly Thr Phe Leu Ala Asn Leu 35 40 45

Ala Ile Asp Leu Gly Leu Gly Val Glu Glu Leu Ser Ala Arg Gly Cys 50 55 60

Arg Ile Val Ser Asp Glu Thr Ile Gly Phe Leu Leu Leu Asn Pro Leu 65 70 75 80

Thr Gly Asp Leu Leu Leu Asn Glu Lys Leu Asp Arg Glu Glu Leu Cys 85 90 95

Gly Pro Thr Glu Pro Cys Val Leu Pro Phe Gln Leu Leu Leu Glu Lys 100 105 110

Pro Phe Gln Ile Phe Arg Ala Glu Leu Trp Val Arg Asp Ile Asn Asp 115 120 125

His Ser Pro Val Phe Leu Asp Arg Glu Ile Thr Leu Asn Ile Leu Glu 130 135 140

Ser Thr Thr Pro Gly Ala Thr Phe Leu Leu Glu Ser Ala His Asp Ser 145 150 155 160

Asp Val Gly Ile Asn Asn Leu Arg Asn Tyr Thr Ile Ser Ser Asn Val 165 170 175

Tyr Phe His Ile Asn Val His Asp Asn Gly Glu Gly Asn Val Tyr Ser 180 185 190

Glu Leu Val Leu Asp Lys Val Leu Asp Arg Glu Glu Val Pro Glu Leu 195 200 205

Arg Leu Thr Leu Thr Gly Leu Asp Gly Gly Ser Pro Pro Arg Ser Gly 210 215 220

Thr Thr Leu Ile Arg Ile Leu Val Leu Asp Ile Asn Asp Asn Val Pro 225 230 235 240

Glu Phe Val Glu Ser Leu Tyr Lys Val Gl
n Val Pro Glu As
n Ser Pro 245 250 255

Val Gly Ser Leu Val Val Thr Val Ser Ala Arg Asp Leu Asp Thr Gly 260 265 270

Ser Asn Gly Glu Ile Val Tyr Ala Phe Phe Tyr Ala Thr Glu Arg Thr 275 280 285

Leu Lys Thr Phe Arg Ile Asn Ser Thr Ser Gly Asn Leu His Leu Lys 290 295 300

Ala Glu Leu Asn Tyr Glu Ala Ile Gln Thr Tyr Thr Leu Thr Ile Gln 305 310 315 320

Ala Lys Asp Gly Gly Gly Leu Ser Gly Lys Cys Thr Val Val His Val Thr Asp Ile Asn Asp Asn Pro Pro Glu Leu Leu Met Ser Ser Leu Thr Ser Pro Ile Pro Glu Asn Ser Pro Glu Thr Val Val Ala Val Phe 360 Arg Ile Arg Asp Arg Asp Ser Gly Asn Asn Ala Lys Met Val Cys Ser Ile Gln Asp His Leu Pro Phe Val Leu Lys Pro Ser Val Glu Asn Phe Tyr Thr Leu Val Thr Glu Arg Ala Leu Asp Arg Glu Glu Arg Thr Glu 405 410 Tyr Asn Ile Thr Ile Thr Val Thr Asp Leu Gly Thr Pro Arg Leu Lys 425 Thr Gln His Asn Leu Thr Val Thr Val Ser Asp Val Asn Asp Asn Ala Pro Thr Phe Ser Gln Thr Thr Tyr Thr Leu Arg Val Arg Glu Asn Asn 455 460 Ser Pro Ala Leu His Ile Gly Ser Val Ser Ala Thr Asp Arg Asp Ser 470 Gly Ala Asn Ala Gln Val Thr Tyr Ser Leu Leu Pro Pro His Asp Pro 490 Gln Leu Pro Leu Gly Ser Leu Val Ser Ile Asn Ala Asp Asn Gly Gln 500 505 Leu Phe Ala Leu Arg Ser Leu Asp Phe Glu Ala Leu Gln Ala Phe Glu 520 Phe Arg Val Gly Ala Ala Asp Arg Gly Ser Pro Ala Leu Ser Ser Gln Ala Leu Val Arg Val Leu Val Ala Asp Ala Asp Asp Asp Asp Ala Pro Phe 550 555 Val Leu Tyr Pro Leu Gln Asn Gly Ser Ala Pro Cys Thr Glu Leu Val Pro Arg Ala Ala Glu Ala Gly Tyr Leu Val Ala Lys Val Val Ala Val Asp Gly Asp Ser Gly Gln Asn Ala Trp Leu Ser Tyr Gln Leu Leu Lys 600 Ala Thr Glu Pro Gly Leu Phe Gly Val Trp Ala His Asn Gly Glu Val 610 Arg Thr Ala

<210> 126

<211> 51

<212> PRT

<213> Homo sapiens

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<400> 126
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Met Arg Ala Val His Pro Ala Leu Gly Leu Cys Leu Leu Pro Ala Pro 1 5 10 15

Ser Cys Gly Lys Val Leu Val Ala Gly Ala Leu Glu Gly Val Pro Ala 20 25 30

Gly Val Ala Glu Ala Glu Ala Asn Ile Ala Gln Val Pro Pro Ile Ala

Arg Gln Thr 50

<210> 127 <211> 74

<212> PRT

<213> Homo sapiens

<400> 127

Met Phe Thr Gly Leu Leu Ile Tyr Leu Leu Val Ser Ser Ile Leu Ile 10

Ser Leu Ala Asp Arg Pro Phe Ser Ser Ile Arg Cys Leu Thr Phe Trp

Val Gln Phe Ile Arg Leu Cys Tyr Ile Arg Asn Thr Ser Leu Leu Pro

Met Thr Cys Val Ala Tyr Ile Phe Phe Leu Phe Tyr Phe Phe Thr Ile

Gln Lys Phe Leu Val Lys Ile Ile Asn Phe

<210> 128

<211> 257

<212> PRT

<213> Homo sapiens

<400> 128

Met Ala Ser Lys Ile Gly Ser Arg Arg Trp Met Leu Gln Leu Ile Met 10

Gln Leu Gly Ser Val Leu Leu Thr Arg Cys Pro Phe Trp Gly Cys Phe

Ser Gln Leu Met Leu Tyr Ala Glu Arg Ala Glu Ala Arg Arg Lys Pro

Asp Ile Pro Val Pro Tyr Leu Tyr Phe Asp Met Gly Ala Ala Val Leu

Cys Ala Ser Phe Met Ser Phe Gly Val Lys Arg Arg Trp Phe Ala Leu 65 70 75 80

Gly Ala Ala Leu Gln Leu Ala Ile Ser Thr Tyr Ala Ala Tyr Ile Gly

Gly Tyr Val His Tyr Gly Asp Trp Leu Lys Val Arg Met Tyr Ser Arg

Thr Val Ala Ile Ile Gly Gly Phe Leu Val Leu Ala Ser Gly Ala Gly 115

Glu Leu Tyr Arg Arg Lys Pro Arg Ser Arg Ser Leu Gln Ser Thr Gly 130 Val Phe Leu Gly Ile Tyr Leu Ile Cys Val Ala Tyr Ser Leu Gln 160 His Ser Lys Glu Asp Arg Leu Ala Tyr Leu Asn His Leu Pro Gly 175 Glu Leu Met Ile Gln Leu Phe Phe Val 185 Leu Tyr Gly Ile Leu Ala Leu 180 Ala Phe Leu Ser Gly Tyr Tyr Val Thr Leu Ala Ala Gln Ile Leu Ala 195 Val Leu Leu Pro Pro Val Met 215 Leu Leu Ile Asp Gly Asn Val Ala Tyr Tyr Leu Asn Gly Gly Gly Gly Gly Gly Gly Ile Leu Ala Tyr Ser Leu Ala Ser Wal Ser Val Gly Ile Leu Leu Leu Ile Asp Gly Asn Val Ala Tyr Tyr Marg Arg Val Gly Phe Trp Asn Gln Met Lys Leu Leu Cal Gly Gly Gly Gly Ser Val Gly Ile Phe Gly Thr Ala Val Ile Leu Ala Thr Asp Gly Gly Clu Ser Val Gly Ile Phe Gly Thr Ala Val Ile Leu Ala Thr Asp Gly Gly

<210> 129

<211> 348

<212> PRT

<213> Homo sapiens

<400> 129

Met Lys Glu Asp Cys Leu Pro Ser Ser His Val Pro Ile Ser Asp Ser $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$

Lys Ser Ile Gln Lys Ser Glu Leu Leu Gly Leu Leu Lys Thr Tyr Asn 20 25 30

Cys Tyr His Glu Gly Lys Ser Phe Gln Leu Arg His Arg Glu Glu Glu 35 40 45

Gly Thr Leu Ile Ile Glu Gly Leu Leu Asn Ile Ala Trp Gly Leu Arg 50 60

Arg Pro Ile Arg Leu Gln Met Gln Asp Asp Arg Glu Gln Val His Leu 65 70 75 80

Pro Ser Thr Ser Trp Met Pro Arg Arg Pro Ser Cys Pro Leu Gly Cys
85 90 95

Trp Ser Leu Leu Gly Leu Ser Ser Leu Ser Leu Pro Ala Ala Ile 100 105 110

Ser Ala Leu Gln Leu Ser Val Phe Arg Lys Glu Pro Ser Pro Gln Asn 115 120 125

Gly Asn Ile Thr Ala Gln Gly Pro Ser Ile Gln Pro Val His Lys Ala 130 135 140

Pro Gln Leu Met Arg Thr Lys Ser Asp Ala Ser Cys Met Ser Gln Arg

165 170 175

<210> 130

<211> 95

<212> PRT

<213> Homo sapiens

<400> 130

Met Ser Ala Trp Leu Val Ser Leu Cys Ala Trp Leu Ser Leu Leu Arg

1 5 10 15

Met Leu Gln Arg Leu Glu Gln Leu Val Glu Ala Lys

Ala Thr Val Thr Ser Gln Val Ser Ser Pro Ala Pro Val Val Ala 20 25 30

Ser Gly Thr Leu Ser Pro Cys His Pro Pro Gly Ser Pro Ala Ala Ser 35 40 45

Ala Cys Leu Leu Ser Pro Gln Ser Pro Cys Arg Ala Ser Lys Trp 50 60

Arg Ser His Met Thr Gly Val Ala Pro Ser Asn Arg Gly Ser Ser Cys 65 70 75 80

Glu Ser Ser Gly Ser Gln Gly Lys Pro Ser Gln Arg Ala Gly Ala 85 90 95

<210> 131

<211> 60

<212> PRT

<213> Homo sapiens

```
<400> 131
Met His Ile Pro Leu Trp Pro Asn Trp Leu Leu Phe Val Cys Lys Leu
Leu Phe Leu Ser His Pro Ile Leu Leu Ala Cys Val Lys Cys Lys Ser
Gln Val Phe Pro Ala Gly Ser Asn Val Phe Leu Ser Leu Asn Gln Gly
                             40
Pro Thr Gly Cys Leu Leu Gln Ile Lys Phe Tyr
<210> 132
<211> 267
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (172)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (175)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 132
Met Ser Glu Ile Arg Gly Lys Pro Ile Glu Ser Ser Cys Met Tyr Gly
Thr Cys Cys Leu Trp Gly Lys Thr Tyr Ser Ile Gly Phe Leu Arg Phe
Cys Lys Gln Ala Thr Leu Gln Phe Cys Val Val Lys Pro Leu Met Ala
Val Ser Thr Val Val Leu Gln Ala Phe Gly Lys Tyr Arg Asp Gly Asp
Phe Asp Val Thr Ser Gly Tyr Leu Tyr Val Thr Ile Ile Tyr Asn Ile
Ser Val Ser Leu Ala Leu Tyr Ala Leu Phe Leu Phe Tyr Phe Ala Thr
                                     90
Arg Glu Leu Leu Ser Pro Tyr Ser Pro Val Leu Lys Phe Phe Met Val
Lys Ser Val Ile Phe Leu Ser Phe Trp Gln Gly Met Leu Leu Ala Ile
Leu Glu Lys Cys Gly Ala Ile Pro Lys Ile His Ser Ala Arg Val Ser
                        135
                                             140
Val Gly Glu Gly Thr Val Ala Ala Gly Tyr Gln Asp Phe Ile Ile Cys
                    150
                                         155
Val Glu Met Phe Phe Ala Ala Leu Ala Leu Arg Xaa Ala Phe Xaa Tyr
```

Lys Val Tyr Ala Asp Lys Arg Leu Asp Ala Gln Gly Arg Cys Ala Pro 180 185 190

```
Met Lys Ser Ile Ser Ser Ser Leu Lys Glu Thr Met Asn Pro His Asp
195 200 205
```

Ile Val Gln Asp Ala Ile His Asn Phe Ser Pro Ala Tyr Gln Gln Tyr 210 215 220

Thr Gln Gln Ser Thr Leu Glu Pro Gly Pro Thr Trp Arg Gly Gly Ala 225 230 235 240

His Gly Leu Ser Arg Ser His Ser Leu Ser Gly Ala Arg Asp Asn Glu 245 250 255

Lys Thr Leu Leu Ser Ser Asp Asp Glu Phe 260 265

<210> 133

<211> 115

<212> PRT

<213> Homo sapiens

<400> 133

Met Ser Asp Phe Ser Asn Leu Ser Leu Leu Phe Phe Leu Leu Val Ser $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$

Leu Ala Lys Gly Leu Ser Ile Leu Phe Ile Tyr Ser Glu Asn His Leu 20 25 30

Leu Val Leu Phe Ile Phe Leu Ile Phe Lys Glu Thr Thr Arg Pro Ala 35 40 45

Ala Phe Cys Val Ser Val Glu Ser Cys Tyr Gly Ser Gly Ser Cys Leu 50 60

Ser Ser Leu Ser Val Glu Trp Pro Gly Gln Cys Met Trp Arg Leu Leu 65 70 75 80

Arg Leu Pro Phe Thr Arg Val Ala Leu Pro Leu Pro Val Trp His Phe 85 90 95

His Val Thr Phe Leu Leu Lys Ser Trp Phe Thr Ala Lys Val Leu Ala 100 105 110

Phe Ile Gln 115

<210> 134

<211> 84

<212> PRT

<213> Homo sapiens

<400> 134

Met Gly Ile Trp Val Leu Ala Leu Trp Val Gly Cys Leu Cys Ser Ser 1 10 15

Thr Gly Leu Pro Val Val Leu Thr Asn Val Glu Leu Gly Leu Arg Cys 20 25 30

Glu Arg Thr Ala Met Ala Cys Cys Asn Gly Ser Ser Leu Val His Pro 35 40 45

Arg Cys Ser Leu Ala Ser Val Cys Ile Ser Ala Pro Pro Ser Pro Ser 50 55 60

Val Pro Trp Lys Lys Val Arg Pro Arg Gly Gln Ile Ala Ser Thr Val

70 65 75 80 Val Trp Thr His <210> 135 <211> 96 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (5) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (8) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (14) <223> Xaa equals any of the naturally occurring L-amino acids <400> 135 Met Arg Val Thr Xaa Ala Thr Xaa Ala Leu Leu Leu Ala Xaa Ile Cys Ser Val Gln Leu Gly Asp Ala Cys Leu Asp Ile Asp Lys Leu Leu Ala Asn Val Val Phe Asp Val Ser Gln Asp Leu Leu Lys Glu Glu Leu Ala Arg Tyr Asn Pro Ser Pro Leu Thr Glu Glu Ser Phe Leu Asn Val Gln Gln Cys Phe Ala Asn Val Ser Val Thr Glu Arg Phe Ala His Ser Val Val Ile Lys Lys Ile Leu Gln Ser Asn Asp Cys Ile Glu Ala Ala Phe

<210> 136

<211> 43

<212> PRT

<213> Homo sapiens

<400> 136

Met Leu Val Ser Ser Pro Phe Ser Ser Pro Val Ser Phe Trp Ala Val 1 5 10 15

Phe Val Cys Leu Leu Leu Tyr Lys Ile Arg Thr Val Asn Tyr Leu 20 25 30

Leu Cys Arg Ser Pro Ala Phe His Ser Ala Leu 35 40

<210> 137

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<211> 41
```

<212> PRT

<213> Homo sapiens

<400> 137

Met Glu Pro Cys Leu Ala Val Ala Leu Ser Val Tyr Ile Trp Leu Arg 1 5 10 15

Ala Thr Ser Ala Lys Leu Leu Pro Asp Leu Asn Glu Ser Ala Glu Ile 20 25 30

Ile Gly Pro Ser Ala Ala Glu Lys Lys 35 40

<210> 138

<211> 52

<212> PRT

<213> Homo sapiens

<400> 138

Met Lys Cys Phe Phe Leu Phe Val Val Ile Leu Ile Ile Met Lys Ser 1 $$ 5 $$ 10 $$ 15

Asn Leu Ser Asp Ile Ile Ile Ala Thr Tyr Thr Tyr Cys Ile Pro Asp 20 25 30

Tyr Phe Phe His Thr Phe Ile Phe Asn Leu Ser Val Tyr Leu Asn Ser 35 40 45

Lys Phe Ile Ser 50

<210> 139

<211> 43

<212> PRT

<213> Homo sapiens

<400> 139

Met Ile Val Tyr Tyr Leu Ala Phe Phe Gly Leu Leu Asp Leu Cys Leu $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$

Gly Glu Gly Asn Phe Ser Ala Arg Glu Ala Val Trp Val Ile Cys Phe 20 25 30

Phe Ala Arg Asp Tyr Ser Pro Lys Tyr Tyr Arg
35 40

<210> 140

<211> 48

<212> PRT

<213> Homo sapiens

<400> 140

Met Ile Leu Gly Leu Leu Asn Leu Leu Arg Ile Val Val Phe Leu Ile 1 5 10 15

Ala Trp Ser Ile Leu Glu Tyr Val Thr His Gly Asp Glu Lys Asp Ile 20 25 30

Tyr Thr Met Leu Val Ser Asp Glu Glu Phe His Ile Cys Leu Leu Glu 35 40 45

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<210> 141
<211> 410
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (78)
<223> Xaa equals any of the naturally occurring L-amino acids
<221> SITE
<222> (168)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 141
Met Asn Pro Ala Val Arg Gln Arg Cys Leu Leu Phe Cys Phe Gln Gln
Lys Leu Ile Leu Ser His Phe Phe Leu Gln Val Pro Gln Trp Cys
Ala Glu Tyr Cys Leu Ser Ile His Tyr Gln His Gly Gly Val Ile Cys
Thr Gln Val His Lys Gln Thr Val Val Gln Leu Ala Leu Arg Val Ala
Asp Glu Met Asp Val Asn Ile Gly His Glu Val Gly Tyr Xaa Ile Pro
Phe Glu Asn Cys Cys Thr Asn Glu Thr Ile Leu Arg Tyr Cys Thr Asp
                                     90
Asp Met Leu Gln Arg Glu Met Met Ser Asn Pro Phe Leu Gly Ser Tyr
                                105
                                                     110
Gly Val Ile Ile Leu Asp Asp Ile His Glu Arg Ser Ile Ala Thr Asp
Val Leu Leu Gly Leu Leu Lys Asp Val Leu Leu Ala Arg Pro Glu Leu
                        135
                                             140
Lys Leu Ile Ile Asn Ser Ser Pro His Leu Ile Ser Lys Leu Asn Ser
                    150
                                        155
Tyr Tyr Gly Asn Val Pro Val Xaa Glu Val Lys Asn Lys His Pro Val
Glu Val Val Tyr Leu Ser Glu Ala Gln Lys Asp Ser Phe Glu Ser Ile
                                185
                                                     190
Leu Arg Leu Ile Phe Glu Ile His His Ser Gly Glu Lys Gly Asp Ile
                            200
Val Val Phe Leu Ala Cys Glu Gln Asp Ile Glu Lys Val Cys Glu Thr
Val Tyr Gln Gly Ser Asn Leu Asn Pro Asp Leu Gly Glu Leu Val Val
                    230
                                         235
Val Pro Leu Tyr Pro Lys Glu Lys Cys Ser Leu Phe Lys Pro Leu Asp
                245
                                                         255
```

390

Ser Cys Pro Phe Ser Val Leu Ser Ser His

<210> 142

<211> 64

<212> PRT

<213> Homo sapiens

<400> 142

Met Leu Arg Phe Leu Gly Asn Gln Met Tyr Ala Leu Tyr Thr Trp Leu 1 5 10

Leu Leu Gln Ser Pro Val Cys Ser Ala Val Leu Val Thr Ser Ala Leu 20 25 30

Leu Tyr Pro Ser Leu Leu Thr Leu Arg Pro Ser Gln Ala His Ala Ala 35 40 45

Cys Ile Tyr Leu Pro Ser Val Ser Leu Val Ser Leu Ser Asp Pro Phe 50 60

<400> 143

Met Asn Leu Ile Phe Arg Leu Pro Cys Ile Leu Leu Thr Cys Ile Tyr
1 10 15

Val Gln Gln Cys Val Cys Lys Tyr Ile Gly Thr Phe Leu Asn Arg Val 20 25 30

<210> 143

<211> 43

<212> PRT

<213> Homo sapiens

Cys Ala Met Cys Lys Gly Leu Leu Thr Val Lys

<210> 144

<211> 58

<212> PRT

<213> Homo sapiens

<400> 144

Met Val Ser Phe Gly Phe Trp Phe Leu Cys Leu Phe Phe Gly Val Trp

Lys Asn Met His Phe Tyr Arg Ala Arg Lys Leu Val Ser Arg Lys Gly

Ser Pro Glu Lys Ala Ala Asp Gly Pro Cys Pro Cys Trp Val Phe Leu

Phe Phe Gly Thr Val Arg Gly Asn Gly Phe

<210> 145

<211> 103 <212> PRT

<213> Homo sapiens

<400> 145

Met Ala His Ile Gly Ala Cys Val Ser Phe Val Phe Phe Leu Gln 1 5 10 15

Gly Ala Val Ser Val Trp Thr Phe Cys Phe Arg Glu Leu Glu Arg Arg

Val Ser Ala Glu Gly Glu Gln Gly Gln Arg Pro His Trp Pro Pro

Pro Ala Ser Gln Ser Glu Thr Leu Cys Leu Val Thr Lys Val Pro Pro

Lys Cys Ser Ser Phe Trp Val Ile Gln Ala Lys Tyr Leu Gly Phe Pro 65 70 75 80

Leu Ser Ser Phe Pro Ser Lys Pro Gln Leu Ser Phe Lys Ile Gly Asp

Ile Ser His Pro Leu Pro Leu 100

<210> 146

<211> 44

<212> PRT

<213> Homo sapiens

<400> 146

Met Met Pro Leu Lys Leu His Ala Lys Cys Leu Tyr Leu Leu Lys Cys

Val Phe Phe Val Gly Val Gly Met Thr Phe Tyr Gln Ile Leu Thr

Gly Phe Lys Ile Gln Lys Ser Leu Asp Leu Val Gly

```
<210> 147
<211> 87
<212> PRT
<213> Homo sapiens
<400> 147
Met Asp Leu Thr Val Glu Gly Phe Gln Ser Trp Met Trp Arg Gly Leu
Thr Phe Leu Pro Phe Leu Phe Phe Gly His Phe Trp Gln Leu Phe
Asn Ala Leu Thr Leu Phe Asn Leu Ala Gln Asp Pro Gln Cys Lys Glu
Trp Gln Val Leu Met Cys Gly Phe Pro Phe Leu Leu Leu Phe Leu Gly
Asn Phe Phe Thr Thr Leu Arg Val Val His His Lys Phe His Ser Gln
Arg His Gly Ser Lys Lys Asp
<210> 148
<211> 65
<212> PRT
<213> Homo sapiens
<400> 148
Met Ala Ser Pro Ser Ile Ile Leu Leu Ile Phe Phe Phe Phe
                                    10
Phe Phe Ser Val Cys Ser Val Ser Gln Tyr Met Phe Glu Asn Glu Cys
Glu Ser Met Ser Arg Arg Gly Arg Gly Leu Gly Arg Ser Arg Leu
Lys Val Glu Gln Gly Pro Asp Ala Asp Leu His Pro Arg Thr Leu Gly
Ser
65
<210> 149
<211> 87
<212> PRT
<213> Homo sapiens
<400> 149
Met Thr Ala Trp Ile Leu Leu Pro Val Ser Leu Ser Ala Phe Ser Ile
Thr Gly Ile Trp Thr Val Tyr Ala Met Ala Val Met Asn His His Val
                                25
```

Cys Pro Val Glu Asn Trp Ser Tyr Asn Glu Ser Cys Pro Pro Asp Pro

Ala Glu Gln Gly Pro Lys Thr Cys Cys Thr Leu Asp Asp Val Pro

```
Leu Ile Ser Gly Pro Asp Leu Pro Pro Ala Leu Arg Ala Ala Pro Gly
```

Ala Glu Ser Ala Leu Leu Gly

<210> 150

<211> 56

<212> PRT

<213> Homo sapiens

<400> 150

Met Lys Ile Pro Leu His Val Val Phe Leu Leu Ile Ser Leu Thr Phe

Leu Phe Thr Thr Leu Pro Thr Ala His Ser Ala Pro Ser Ser Pro Ala

Ser Leu His Ile Leu Arg Leu Arg Gly His Leu Met Cys Val Phe Pro

Leu Lys Met Met Pro Thr Leu Ile

<210> 151

<211> 45

<212> PRT

<213> Homo sapiens

Met Val Gln Trp Lys Asn Trp Pro Glu Ser Leu Glu Val Trp Val Leu

Val Leu Ala Val Pro Leu Thr His Cys Asp Leu Gly Ile Leu Cys Cys 25

Glu Asp Ile Ser Gln Val Leu His Val Ser Gln Gln Ile 35 40

<210> 152 <211> 52

<212> PRT

<213> Homo sapiens

Met Asp Ser Cys Leu Phe Leu Arg Asp Phe Cys Trp Lys Met Arg Met

Leu Thr Ile Leu Pro Leu Gly Thr Leu Phe Pro Leu Leu Thr Leu Leu 20

Leu Leu Pro Leu Glu Val Pro Ser Val Ser Cys Gly Val Pro Phe Ala 40

Val Trp Asp Leu 50

<210> 153

<211> 80

<212> PRT

<213> Homo sapiens

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<400> 153
```

Met Ala Leu Trp Val Thr Cys Ile Leu Ser Leu Cys Thr Trp Phe Ser

Cys Leu Tyr Gly Ala Asp Ser Leu Ala Asn Lys Cys Leu Ser Ala Gly

Ala Thr Arg Lys Ala Phe Pro Phe Cys Val Leu Phe Arg Asp Leu Glu

Val Gly Leu Gly Phe Glu Gly Phe Val Thr His Leu Ala Cys Lys Leu

Phe Cys Tyr Cys Glu Leu Ser Asp Ser Ala Leu Ser Leu Gly His Glu

<210> 154

<211> 64

<212> PRT

<213> Homo sapiens

<400> 154

Met Asn Ile Pro Trp Leu Tyr Phe Val Asn Ser Phe Leu Ile Ala Thr

Val Tyr Trp Phe Asn Cys His Lys Leu Asn Leu Lys Asp Ile Gly Leu

Pro Leu Asp Pro Phe Val Asn Trp Lys Cys Cys Phe Ile Pro Leu Thr

Ile Pro Asn Leu Glu Gln Ile Glu Lys Pro Ile Ser Ile Met Ile Cys

<210> 155

<211> 51 <212> PRT

<213> Homo sapiens

<400> 155

Met Ser Phe Asp Ala Glu Lys Phe Leu Ile Leu Lys Phe Ile Leu Gln 10

Phe Phe Leu Leu Tyr Val Leu Phe Leu Val Leu Tyr Leu Arg Ile

Cys Cys His Thr Gln Gly His Glu Asp Leu Pro Val Cys Tyr Leu Leu 40

Arg Val Leu 50

<210> 156 <211> 78

<212> PRT

<213> Homo sapiens

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<400> 156
```

Met Ala Lys Arg Ser Ser Ser Leu Ser Ser Ser Lys Arg Leu Val Phe

Phe Thr Ala Leu Ala Ser Trp Leu Trp Arg Val Pro Glu Ser Leu Gly

Ser Pro Leu Asp Leu Leu Ser Asp Ala Lys Trp Val Cys Glu Ala Gly

Ile Phe His Trp Ser Ser Ser Leu Leu Asn Asn Arg Ala Asp Ala

Phe Phe Leu Glu Ser Ser Glu Ala Phe Ala Phe Ser Ser Leu

<210> 157

<211> 47

<212> PRT

<213> Homo sapiens

<400> 157

Met Lys Met Asn Lys Leu Phe Trp Ile Arg Ile Leu Lys Leu Leu

Gln Ala Leu Ser Gln Cys Lys Leu Leu Ile Lys Gly Gln Val Ala Val

Pro Lys Asp Leu Ile Met Asp Ser Glu Ile Ala Lys Val Thr Asn

<210> 158

<211> 53

<212> PRT

<213> Homo sapiens

<400> 158

Met Asn Leu Leu His Cys Leu Tyr Met Ile Asn Ile Ile Ile Tyr Ile

Phe Cys Ile Lys Leu Ile Trp Leu His Leu Ser Cys Ile Leu Ser His

Ile Ser Phe Ile Ser Ser Met Asp Met Ser Arg Ser Leu Tyr Trp Ser

Pro Val Cys Ala Val 50

<210> 159

<211> 262

<212> PRT

<213> Homo sapiens

<400> 159

Met Arg Leu Arg Leu Leu Leu Leu Leu Leu Leu Leu Leu Ala

Pro Pro Ala Arg Ala Pro Lys Pro Ser Ala Gln Asp Val Ser Leu Gly 25

Val Asp Trp Leu Thr Arg Tyr Gly Tyr Leu Pro Pro Pro His Pro Ala

```
Gln Ala Gln Leu Gln Ser Pro Glu Lys Leu Arg Asp Ala Ile Lys Val
                         55
Met Gln Arg Phe Ala Gly Leu Pro Glu Thr Gly Arg Met Asp Pro Gly
Thr Val Ala Thr Met Arg Lys Pro Arg Cys Ser Leu Pro Asp Val Leu
                 85
Gly Val Ala Gly Leu Val Arg Arg Gly Arg Arg Tyr Ala Leu Ser Gly
Ser Val Trp Lys Lys Arg Thr Leu Thr Trp Arg Val Arg Ser Phe Pro
                            120
Gln Ser Ser Gln Leu Ser Gln Glu Thr Val Arg Val Leu Met Ser Tyr
                        135
Ala Leu Met Ala Trp Gly Met Glu Ser Gly Leu Thr Phe His Glu Val
Asp Ser Pro Gln Gly Gln Glu Pro Asp Ile Leu Ile Asp Phe Ala Arg
                                    170
Ala Phe His Gln Asp Ser Tyr Pro Phe Asp Gly Leu Gly Gly Thr Leu
            180
                                185
Ala His Ala Phe Phe Pro Gly Glu His Pro Ile Ser Gly Asp Thr His
                            200
Phe Asp Asp Glu Glu Thr Trp Thr Phe Gly Ser Lys Asp Gly Glu Gly
                        215
Thr Asp Leu Phe Ala Val Ala Val His Glu Phe Gly His Ala Leu Gly
                    230
                                        235
Leu Gly His Ser Ser Ala Pro Asn Ser Ile Met Arg Pro Phe Tyr Gln
                245
                                    250
Gly Pro Val Gly Arg Pro
            260
```

<210> 160

<211> 95

<212> PRT

<213> Homo sapiens

<400> 160

Met Thr Leu Ala Leu Ala Tyr Leu Leu Ala Leu Pro Gln Val Leu Asp $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$

Ala Asn Arg Cys Phe Glu Lys Gln Ser Pro Ser Ala Leu Ser Leu Gln 20 25 30

Leu Ala Ala Tyr Tyr Ser Leu Gln Ile Tyr Ala Arg Leu Ala Pro 35 40 45

Cys Phe Arg Asp Lys Cys His Pro Leu Tyr Arg Glu Leu Ile Thr Tyr 50 55 60

Val Ser Arg Met Tyr Ser Lys Trp Gln Ala Ala Leu Gly Phe Pro Val 65 70 75 80

Phe Asp Lys Val Ala Ser Pro Gly Ile Ser Trp Arg Thr Val Val

85 90 95

<210> 161

<211> 120

<212> PRT

<213> Homo sapiens

<400> 161

Met Leu Asn Leu Gly Ser Trp Pro Gly Leu Val Ala Ala Ser Leu Phe $1 \hspace{1.5cm} 5 \hspace{1.5cm} 10 \hspace{1.5cm} 15$

Leu Leu Lys Gly Val Phe Ser Leu Phe Val Gln Leu Lys Asn Pro 20 25 30

Leu Gln His Pro Arg Asn Arg Ala Thr His Leu Leu Ala Thr Pro Gly $35 \hspace{1cm} 40 \hspace{1cm} 45$

Ala Arg Val Leu Gln Glu His Leu Ser Ile His Pro Val Cys His Gln 50 60

Ser His Pro Pro Glu Ala Pro Leu Leu Pro Pro Ser Thr Arg Ala Ser 65 70 75 80

Leu Gln Ala Ser Pro Pro Pro Pro Ser Ser Gln His Pro Gly Gly
85 90 95

Thr Pro Ala Ala Cys Leu Gln Ser Lys Leu Pro Ile Thr His Arg Arg 100 105 110

Ser Pro Leu Arg Arg Pro Arg His 115 120

<210> 162

<211> 121

<212> PRT

<213> Homo sapiens

<400> 162

Met Cys Phe Leu Met Ile Phe Thr Phe Leu Val Cys Trp Met Pro Tyr $1 \hspace{1cm} 5 \hspace{1cm} 15$

Ile Val Ile Cys Phe Leu Val Val Asn Gly His Gly His Leu Val Thr 20 25 30

Pro Thr Ile Ser Ile Val Ser Tyr Leu Phe Ala Lys Ser Asn Thr Val 35 40 45

Tyr Asn Pro Val Ile Tyr Val Phe Met Ile Arg Lys Phe Arg Arg Ser 50 60

Leu Leu Gln Leu Cys Leu Arg Leu Leu Arg Cys Gln Arg Pro Ala 65 70 75 80

Lys Asp Leu Pro Ala Ala Gly Ser Glu Met Gln Ile Arg Pro Ile Val 85 90 95

Met Ser Gln Lys Asp Gly Asp Arg Pro Lys Lys Ser Asp Phe Gln Leu 100 105 110

Phe Phe His His Phe Tyr His His Gln 115 120

<211> 310

<212> PRT

<213> Homo sapiens

<400> 163

Met Ala Leu Arg Arg Pro Pro Arg Leu Arg Leu Cys Ala Arg Leu Pro $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$

Asp Phe Phe Leu Leu Leu Phe Arg Gly Cys Leu Ile Gly Ala Val 20 25 30

Asn Leu Lys Ser Ser Asn Arg Thr Pro Val Val Glu Glu Phe Glu Ser 35 40 45

Val Glu Leu Ser Cys Ile Ile Thr Asp Ser Gln Thr Ser Asp Pro Arg
50 . 55 60

Ile Glu Trp Lys Lys Ile Gln Asp Glu Gln Thr Thr Tyr Val Phe
65 70 75 80

Asp Asn Lys Ile Gln Gly Asp Leu Ala Gly Arg Ala Glu Ile Leu Gly 85 90 95

Lys Thr Ser Leu Lys Ile Trp Asn Val Thr Arg Arg Asp Ser Ala Leu 100 105 110

Tyr Arg Cys Glu Val Val Ala Arg Asn Asp Arg Lys Glu Ile Asp Glu 115 120 125

Ile Val Ile Glu Leu Thr Val Gln Val Lys Pro Val Thr Pro Val Cys 130 135 140

Arg Val Pro Lys Ala Val Pro Val Gly Lys Met Ala Thr Leu His Cys 145 150 155 160

Gln Glu Ser Glu Gly His Pro Arg Pro His Tyr Ser Trp Tyr Arg Asn 165 170 175

Asp Val Pro Leu Pro Thr Asp Ser Arg Ala Asn Pro Arg Phe Arg Asn 180 185 190

Ser Ser Phe His Leu Asn Ser Glu Thr Gly Thr Leu Val Phe Thr Ala 195 200 205

Val His Lys Asp Asp Ser Gly Gln Tyr Tyr Cys Ile Ala Ser Asn Asp 210 215 220

Ala Gly Ser Ala Arg Cys Glu Glu Gln Glu Met Glu Val Tyr Asp Leu 225 230 235 240

Asn Ile Gly Gly Ile Ile Gly Gly Val Leu Val Val Leu Ala Val Leu 245 250 255

Ala Leu Ile Thr Leu Gly Ile Cys Cys Ala Tyr Arg Arg Gly Tyr Phe 260 265 270

Ile Asn Asn Lys Gln Asp Gly Glu Ser Tyr Lys Asn Pro Gly Lys Pro 275 280 285

Asp Gly Val Asn Tyr Ile Arg Thr Asp Glu Glu Gly Asp Phe Arg His 290 295 300

Lys Ser Ser Phe Val Ile

<210> 164

<211> 310

<212> PRT

<213> Homo sapiens

<400> 164

Met Ala Leu Arg Arg Pro Pro Arg Leu Arg Leu Cys Ala Arg Leu Pro $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$

Asp Phe Phe Leu Leu Leu Phe Arg Gly Cys Leu Ile Gly Ala Val 20 25 30

Asn Leu Lys Ser Ser Asn Arg Thr Pro Val Val Gln Glu Phe Glu Ser 35 40 45

Val Glu Leu Ser Cys Ile Ile Thr Asp Ser Gln Thr Ser Asp Pro Arg 50 60

Ile Glu Trp Lys Lys Ile Gln Asp Glu Gln Thr Thr Tyr Val Phe 65 70 75 80

Asp Asn Lys Ile Gln Gly Asp Leu Ala Gly Arg Ala Glu Ile Leu Gly
85 90 95

Lys Thr Ser Leu Lys Ile Trp Asn Val Thr Arg Arg Asp Ser Ala Leu 100 105 110

Tyr Arg Cys Glu Val Val Ala Arg Asn Asp Arg Lys Glu Ile Asp Glu
115 120 125

Ile Val Ile Glu Leu Thr Val Gln Val Lys Pro Val Thr Pro Val Cys 130 135 140

Arg Val Pro Lys Ala Val Pro Val Gly Lys Met Ala Thr Leu His Cys 145 150 155

Gln Glu Ser Glu Gly His Pro Arg Pro His Tyr Ser Trp Tyr Arg Asn 165 170 175

Asp Val Pro Leu Pro Thr Asp Ser Arg Ala Asn Pro Arg Phe Arg Asn 180 185 190

Ser Ser Phe His Leu Asn Ser Glu Thr Gly Thr Leu Val Phe Thr Ala 195 200 205

Val His Lys Asp Asp Ser Gly Gln Tyr Tyr Cys Ile Ala Ser Asn Asp 210 215 220

Ala Gly Ser Ala Arg Cys Glu Glu Glu Met Glu Val Tyr Asp Leu 225 230 235 240

Asn Ile Gly Gly Ile Ile Gly Gly Val Leu Val Leu Ala Val Leu 245 250 255

Ala Leu Ile Thr Leu Gly Ile Cys Cys Ala Tyr Arg Arg Gly Tyr Phe 260 265 270

Ile Asn Asn Lys Gln Asp Gly Glu Ser Tyr Lys Asn Pro Gly Lys Pro 275 280 285

Asp Gly Val Asn Tyr Ile Arg Thr Asp Glu Glu Gly Asp Phe Arg His 290 295 300

Lys Ser Ser Phe Val Ile 305

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<210> 165
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<211> 170

<212> PRT

<213> Homo sapiens

<400> 165

Met Ile Leu Thr Met Leu Leu Met Leu Lys Leu Cys Thr Glu Val Arg

1 10 15

Val Ala Asn Glu Leu Asn Ala Arg Arg Arg Ser Phe Thr Asp Phe Asp 20 25 30

Pro His His Phe Trp Gln Trp Ser Ser Phe Ser Asp Tyr Val Gln Cys
35 40 45

Val Leu Ala Phe Thr Gly Val Ala Gly Tyr Ile Thr Tyr Leu Ser Ile 50 60

Asp Ser Ala Leu Phe Val Glu Thr Leu Gly Phe Leu Ala Val Leu Thr 65 70 75 80

Glu Ala Met Leu Gly Val Pro Gln Leu Tyr Arg Asn His Arg His Gln
85 90 95

Ser Thr Glu Gly Met Ser Ile Lys Met Val Leu Met Trp Thr Ser Gly 100 105 110

Asp Ala Phe Lys Thr Ala Tyr Phe Leu Leu Lys Gly Ala Pro Leu Gln
115 120 125

Phe Ser Val Cys Gly Leu Leu Gln Val Leu Val Asp Leu Ala Ile Leu 130 135 140

Ala Val His Pro Thr Gly Thr Lys Ala Leu

<210> 166

<211> 114

<212> PRT

<213> Homo sapiens

<400> 166

Met Val Thr Arg Ala Gly Ala Gly Thr Ala Val Ala Gly Ala Val 1 5 10 15

Val Ala Leu Leu Ser Ala Ala Leu Ala Leu Tyr Gly Pro Pro Leu Asp 20 25 30

Ala Val Leu Glu Arg Ala Phe Ser Leu Arg Lys Ala His Ser Ile Lys $35 \hspace{1cm} 40 \hspace{1cm} 45$

Asp Met Glu Asn Thr Leu Gln Leu Val Arg Asn Ile Ile Pro Pro Leu 50 60

Ser Ser Thr Lys His Lys Gly Gln Asp Gly Arg Ile Gly Val Val Gly 65 70 75 80

Gly Cys Gln Glu Tyr Thr Gly Ala Pro Tyr Phe Ala Glu Ser Gln Leu 85 90 95

Ser Lys Trp Ala Gln Thr Cys Pro Thr Cys Ser Val Pro Val Arg Pro

100 105 110

His Leu

<210> 167

<211> 114

<212> PRT

<213> Homo sapiens

<400> 167

Met Val Thr Arg Ala Gly Ala Gly Thr Ala Val Ala Gly Ala Val Val

Val Ala Leu Leu Ser Ala Ala Leu Ala Leu Tyr Gly Pro Pro Leu Asp

Ala Val Leu Glu Arg Ala Phe Ser Leu Arg Lys Ala His Ser Ile Lys

Asp Met Glu Asn Thr Leu Gln Leu Val Arg Asn Ile Ile Pro Pro Leu

Ser Ser Thr Lys His Lys Gly Gln Asp Gly Arg Ile Gly Val Val Gly

Gly Cys Gln Glu Tyr Thr Gly Ala Pro Tyr Phe Ala Glu Ser Gln Leu 85 90 95

Ser Lys Trp Ala Gln Thr Cys Pro Thr Cys Ser Val Pro Val Arg Pro

His Leu

<210> 168

<211> 56 <212> PRT

<213> Homo sapiens

<400> 168

Met Ala Arg Ala Cys Val Phe Gln Leu Ser Leu Trp Arg Lys Leu Pro 10

Val Gly Ile Asn Leu Ser Pro Ala Ile Leu Ser Leu Ser Leu Gly Cys

Leu Gly Leu Gly Phe Leu Leu Leu Glu Arg Met Thr Thr Asp Ser

Gly Ile Arg Gln Arg Arg Gln Thr 50

<210> 169

<211> 51

<212> PRT

<213> Homo sapiens

<400> 169

Met Arg Ala Val His Pro Ala Leu Gly Leu Cys Leu Leu Pro Ala Pro 15

Ser Cys Gly Lys Val Leu Val Ala Gly Ala Leu Glu Gly Val Pro Ala

20 25 30

Gly Val Ala Glu Ala Glu Ala Asn Ile Ala Gln Val Pro Pro Ile Ala 35 40 45

Arg Gln Thr 50

<210> 170

<211> 120

<212> PRT

<213> Homo sapiens

<400> 170

Met Leu Pro Ala Leu Arg Gly Leu Leu Phe Val Thr Trp Val Phe Pro 1 5 10 15

Leu Glu Asp Gln Glu Ala Ala Phe Pro Gly Glu Val Asp Pro Pro 20 25 30

Ser Pro Phe Gly Pro Cys Thr Ala Glu Gly Pro Ala Ala Leu Pro Ala 35 40 45

Arg Val Trp Ser Val Lys Gln Gly Leu Arg Pro Phe Ser Cys Ser Asp 50 60

Ala Pro Gln Gly Asp Ser Arg Glu Leu Ala Lys Pro Pro Gly Leu Pro 65 70 75 80

Pro Val Arg Gly Ala Leu Val Thr Trp Pro Pro Gln Pro Thr Gly
85 90 95

Leu Ser Arg Leu Arg Cys His Pro His Gly Thr Gly Gly Asn His Ser 100 105 110

Ile Arg Cys Arg Arg Cys Arg Pro 115 120

<210> 171

<211> 263

<212> PRT

<213> Homo sapiens

<400> 171

Met Pro Arg Arg Pro Ser Cys Pro Leu Gly Cys Trp Ser Leu Leu Leu 1 5 10 15

Gly Leu Ser Ser Leu Ser Leu Pro Ala Ala Ile Ser Ala Leu Gln Leu 20 25 30

Ser Val Phe Arg Lys Glu Pro Ser Pro Gln Asn Gly Asn Ile Thr Ala 35 40 45

Gln Gly Pro Ser Ile Gln Pro Val His Lys Ala Glu Ser Ser Thr Asp 50 55 60

Ser Ser Gly Pro Leu Glu Glu Ala Glu Glu Ala Pro Gln Leu Met Arg 65 70 75 80

Thr Lys Ser Asp Ala Ser Cys Met Ser Gln Arg Arg Pro Lys Cys Arg
85 90 95

Ala Pro Gly Glu Ala Gln Arg Ile Arg Arg His Arg Phe Ser Ile Asn 100 105 110 Gly His Phe Tyr Asn His Lys Thr Ser Val Phe Thr Pro Ala Tyr Gly 120 Ser Val Thr Asn Val Arg Val Asn Ser Thr Met Thr Thr Leu Gln Val 135 140 Leu Thr Leu Leu Leu Asn Lys Phe Arg Val Glu Asp Gly Pro Ser Glu 150 Phe Ala Leu Tyr Ile Val His Glu Ser Gly Glu Arg Thr Lys Leu Lys Asp Cys Glu Tyr Pro Leu Ile Ser Arg Ile Leu His Gly Pro Cys Glu Lys Ile Ala Arg Ile Phe Leu Met Glu Ala Asp Leu Gly Val Glu Val 200 Pro His Glu Val Ala Gln Tyr Ile Lys Phe Glu Met Pro Val Leu Asp Ser Phe Val Glu Lys Leu Lys Glu Glu Glu Glu Arg Glu Ile Ile Lys Leu Thr Met Lys Phe Gln Ala Leu Arg Leu Thr Met Leu Gln Arg Leu 250 Glu Gln Leu Val Glu Ala Lys 260

<210> 172

<211> 157

<212> PRT

<213> Homo sapiens

<400> 172

Met Val Lys Ser Val Ile Phe Leu Ser Phe Trp Gln Gly Met Leu Leu 1 .5 10 15

Ala Ile Leu Glu Lys Cys Gly Ala Ile Pro Lys Ile His Ser Ala Arg 20 25 30

Val Ser Val Gly Glu Gly Thr Val Ala Ala Gly Tyr His Asp Phe Ile 35 40 45

Ile Cys Val Glu Met Phe Phe Ala Ala Leu Ala Leu Arg His Pro Phe 50 $^{\circ}60$

Thr Tyr Asn Val Tyr Ala Asp Lys Arg Leu Asp Ala Gln Gly Arg Cys 65 70 75 80

Ala Pro Met Lys Ser Ile Ser Ser Ser Leu Lys Glu Thr Met Asn Pro 85 90 95

His Asp Ile Val Gln Asp Ala Ile His Asn Phe Ser Pro Ala Tyr Gln 100 105 110

Gln Tyr Thr Gln Gln Ser Thr Leu Glu Pro Gly Pro Thr Trp Arg Gly 115 120 125

Gly Ala His Gly Leu Ser Arg Ser His Ser Leu Ser Gly Ala Arg Asp 130 135 140

Asn Glu Lys Thr Leu Leu Leu Ser Ser Asp Asp Glu Phe

145 150 155 <210> 173 <211> 71 <212> PRT <213> Homo sapiens <400> 173 Glu Ser Ala Pro Pro Trp Leu Pro Ile Cys Pro Thr Arg Ser Leu Gly Leu Leu Val Gln Leu Leu Ala Leu Ala Gly Ser Cys Ser Ala Gly Pro Arg Ala Leu Gly Gln Ala Ser Gly Val Val Arg Thr Thr Lys Pro Leu 35 40 Leu Ser Pro Ser Thr Pro Leu Asp Leu Gly Pro Pro Glu Pro Pro Ala Gly Trp Ala Tyr Thr Ser Ser <210> 174 <211> 90 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (39) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (45) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (49) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (51) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (62) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (64) <223> Xaa equals any of the naturally occurring L-amino acids <400> 174 Met Gly Ile Trp Val Leu Ala Leu Trp Val Gly Cys Leu Cys Phe Leu Tyr Arg Pro Ala Cys Gly Thr Asp Gln Cys Gly Ala Trp Ser Lys Val

25

30

20

Arg Arg Thr Ala Met Ala Xaa Ala Thr Gly Ala Ala Xaa Ser Thr Pro 40

Xaa Ala Xaa Trp Leu Leu Ser Val Ser His Thr Thr Leu Xaa Leu Xaa

Ala Met Glu Lys Gly Glu Ala Gln Arg Ala Asn Cys Gln His Ser Cys

Val Asp Thr Leu Gly Pro Gln His Gln Pro

<210> 175

<211> 155 <212> PRT

<213> Homo sapiens

<400> 175

Met Glu Asn Phe Ile Lys Val Gln Leu Arg Asp Gly Asp Ser Asn Cys

Glu Trp Ser Val Leu Tyr Val Ile Ile Ala Thr Phe Val Ile Val Val

Ala Leu Gly Ile Leu Ser Trp Thr Val Ile Cys Cys Cys Lys Arg Gln

Lys Gly Lys Pro Lys Arg Lys Ser Lys Tyr Lys Ile Leu Asp Ala Thr 50 60

Asp Gln Glu Ser Leu Glu Leu Lys Pro Thr Ser Arg Ala Gly Lys Glu

Lys Arg Met Ser Leu Ser Gly Leu Asn Gln Ser Ser Trp Ile Leu Glu

Met Lys Asn Gln Glu Thr Pro Gly Ile Lys Gln Lys Gly Leu Leu

Leu Ser Ser Ser Leu Met His Ser Glu Ser Glu Leu Asp Ser Asp Asp

Ala Ile Phe Thr Trp Pro Asp Arg Glu Lys Gly Lys Leu Leu His Gly

Gln Asn Gly Ser Val Pro Asn Gly Arg Pro Leu 150

<210> 176

<211> 102

<212> PRT

<213> Homo sapiens

<400> 176

Met Asn Pro Ala Val Arg Gln Arg Cys Leu Leu Phe Cys Phe Gln Gln 10

Lys Leu Ile Leu Ser His Phe Phe Leu Leu Gln Val Pro Gln Trp Cys

Ala Glu Tyr Cys Leu Ser Ile His Tyr Gln His Gly Gly Val Ile Cys

Thr Gln Val His Lys Gln Thr Val Val Gln Leu Ala Leu Arg Val Ala 50 55 60

Asp Glu Met Asp Val Asn Ile Gly His Glu Val Gly Tyr Val Ile Pro 65 70 75 80

Phe Glu Asn Cys Cys Thr Asn Glu Thr Ile Leu Arg Leu Val Cys Gly 85 90 95

Val Gln Ser Ala Pro Cys

<210> 177

<211> 58

<212> PRT

<213> Homo sapiens

<400> 177

Met Val Ser Phe Gly Phe Trp Phe Leu Cys Leu Phe Phe Gly Val Trp $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$

Lys Asn Met His Phe Tyr Arg Ala Arg Lys Leu Val Ser Arg Lys Gly 20 25 30

Ser Pro Glu Lys Ala Ala Asp Gly Pro Cys Pro Cys Trp Val Phe Leu $35 \hspace{1.5cm} 40 \hspace{1.5cm} 45$

Phe Phe Gly Thr Val Arg Gly Asn Gly Phe 50

<210> 178

<211> 45

<212> PRT

<213> Homo sapiens

<400> 178

Met Val Gln Trp Lys Asn Trp Pro Glu Ser Leu Glu Val Trp Val Leu 1 5 10 15

Val Leu Ala Val Pro Leu Thr His Cys Asp Leu Gly Ile Leu Cys Cys 20 25 30

Glu Asp Ile Ser Gln Val Leu His Val Ser Gln Gln Ile 35 40 45

<210> 179

<211> 98

<212> PRT

<213> Homo sapiens

<400> 179

Met Val His Ile Asn Arg Ala Leu Lys Leu Ile Ile Arg Leu Phe Leu 1 5 10 15

Val Glu Asp Leu Val Asp Ser Leu Lys Leu Ala Val Phe Met Trp Leu 20 25 30

Met Thr Tyr Val Gly Ala Val Phe Asn Gly Ile Thr Leu Leu Ile Leu 35 40 45

Ala Glu Leu Ile Phe Ser Val Pro Ile Val Tyr Glu Lys Tyr Lys 50 55 60

Thr Gln Ile Asp His Tyr Val Gly Ile Ala Arg Asp Gln Thr Lys Ser 65 70 75 80

Ile Val Glu Lys Ile Gln Ala Lys Leu Pro Gly Ile Ala Lys Lys

Ala Glu

<210> 180 <211> 392

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (251)

<223> Xaa equals any of the naturally occurring L-amino acids

Met Ala Pro Trp Pro Pro Lys Gly Leu Val Pro Ala Val Leu Trp Gly

Leu Ser Leu Phe Leu Asn Leu Pro Gly Pro Ile Trp Leu Gln Pro Ser 25

Pro Pro Gln Ser Ser Pro Pro Gln Pro His Pro Cys His Thr

Cys Arg Gly Leu Val Asp Ser Phe Asn Lys Gly Leu Glu Arg Thr Ile

Arg Asp Asn Phe Gly Gly Gly Asn Thr Ala Trp Glu Glu Glu Asn Leu 65 70 75 80

Ser Lys Tyr Lys Asp Ser Glu Thr Arg Leu Val Glu Val Leu Glu Gly

Val Cys Ser Lys Ser Asp Phe Glu Cys His Arg Leu Leu Glu Leu Ser

Glu Glu Leu Val Glu Ser Trp Trp Phe His Lys Gln Gln Glu Ala Pro 120

Asp Leu Phe Gln Trp Leu Cys Ser Asp Ser Leu Lys Leu Cys Cys Pro 135

Ala Gly Thr Phe Gly Pro Ser Cys Leu Pro Cys Pro Gly Gly Thr Glu

Arg Pro Cys Gly Gly Tyr Gly Gln Cys Glu Gly Glu Gly Thr Arg Gly 165

Gly Ser Gly His Cys Asp Cys Gln Ala Gly Tyr Gly Gly Glu Ala Cys 185

Gly Gln Cys Gly Leu Gly Tyr Phe Glu Ala Glu Arg Asn Ala Ser His

Leu Val Cys Ser Ala Cys Phe Gly Pro Cys Ala Arg Cys Ser Gly Pro

Glu Glu Ser Asn Cys Leu Gln Cys Lys Lys Gly Trp Ala Leu His His 230 235

Leu Lys Cys Val Asp Cys Ala Lys Ala Cys Xaa Gly Cys Met Gly Ala Gly Pro Gly Arg Cys Lys Lys Cys Ser Pro Gly Tyr Gln Gln Val Gly Ser Lys Cys Leu Asp Val Asp Glu Cys Glu Thr Glu Val Cys Pro Gly 280 285 Glu Asn Lys Gln Cys Glu Asn Thr Glu Gly Gly Tyr Arg Cys Ile Cys 295 Ala Glu Gly Tyr Lys Gln Met Glu Gly Ile Cys Val Lys Glu Gln Ile Pro Glu Ser Ala Gly Phe Phe Ser Glu Met Thr Glu Asp Glu Leu Val 325 330 Val Leu Gln Gln Met Phe Phe Gly Ile Ile Ile Cys Ala Leu Ala Thr Leu Ala Ala Lys Gly Asp Leu Val Phe Thr Ala Ile Phe Ile Gly Ala Val Ala Ala Met Thr Gly Tyr Trp Leu Ser Glu Arg Ser Asp Arg Val 375 Leu Glu Gly Phe Ile Lys Gly Arg

<210> 181 <211> 434

<212> PRT

<213> Homo sapiens

<400> 181

Gln Ser Ser Pro Pro Pro Gln Pro His Pro Cys His Thr Cys Arg Gly 35 40 45

Leu Val Asp Ser Phe Asn Lys Gly Leu Glu Arg Thr Ile Arg Asp Asn 50 55 60

Phe Gly Gly Gly Asn Thr Ala Trp Glu Glu Glu Asn Leu Ser Lys Tyr 65 70 75 80

Lys Asp Ser Glu Thr Arg Leu Val Glu Val Leu Glu Gly Val Cys Ser 85 90 95

Lys Ser Asp Phe Glu Cys His Arg Leu Leu Glu Leu Ser Glu Glu Leu 100 105 110

Val Glu Ser Trp Trp Phe His Lys Gln Gln Glu Ala Pro Asp Leu Phe 115 120 125

Gln Trp Leu Cys Ser Asp Ser Leu Lys Leu Cys Cys Pro Ala Gly Thr 130 135 140

Phe Gly Pro Ser Cys Leu Pro Cys Pro Gly Gly Thr Glu Arg Pro Cys 145 150 155 160

Gly Gly Tyr Gly Gln Cys Glu Gly Glu Gly Thr Arg Gly Gly Ser Gly His Cys Asp Cys Gln Ala Gly Tyr Gly Glu Ala Cys Gly Gln Cys Gly Leu Gly Tyr Phe Glu Ala Glu Arg Asn Ala Ser His Leu Val Cys 200 Ser Ala Cys Phe Gly Pro Cys Ala Arg Cys Ser Gly Pro Glu Glu Ser Asn Cys Leu Gln Cys Lys Lys Gly Trp Ala Leu His His Leu Lys Cys Val Asp Ile Asp Glu Cys Gly Thr Glu Gly Ala Asn Cys Gly Ala Asp Gln Phe Cys Val Asn Thr Glu Gly Ser Tyr Glu Cys Arg Asp Cys Ala Lys Ala Cys Leu Gly Cys Met Gly Ala Gly Pro Gly Arg Cys Lys Lys 280 Cys Ser Pro Gly Tyr Gln Gln Val Gly Ser Lys Cys Leu Asp Val Asp 295 Glu Cys Glu Thr Glu Val Cys Pro Gly Glu Asn Lys Gln Cys Glu Asn Thr Glu Gly Gly Tyr Arg Cys Ile Cys Ala Glu Gly Tyr Lys Gln Met Glu Gly Ile Cys Val Lys Glu Gln Ile Pro Gly Ala Phe Pro Ile Leu 345 350 Thr Asp Leu Thr Pro Glu Thr Thr Arg Arg Trp Lys Leu Gly Ser His 360 Pro His Ser Thr Tyr Val Lys Met Lys Met Gln Arg Asp Glu Ala Thr Phe Pro Gly Leu Tyr Gly Lys Gln Val Ala Lys Leu Gly Ser Gln Ser 390 395 Arg Gln Ser Asp Arg Gly Thr Arg Leu Ile His Val Ile Asn Ala Leu Pro Pro Thr Cys Pro Pro Gln Lys Lys Lys Lys Lys Lys Lys Gly

Gly Arg

Thr Thr Leu Val Gln Ala Ile Arg Ile Thr Ser Tyr Met Asn Glu Thr

<210> 182

<211> 150

<212> PRT

<213> Homo sapiens

<400> 182

Met Val Met Ile Leu Phe Val Ala Phe Ile Thr Cys Trp Glu Glu Val 1 5 15

20 25

Ile Leu Tyr Phe Pro Phe Ser Ser His Ser Ser Tyr Thr Val Arg Ser Lys Lys Ile Phe Leu Ser Lys Leu Ile Val Cys Phe Leu Ser Thr Trp Leu Pro Phe Val Leu Leu Gln Val Ile Ile Val Leu Leu Lys Val Gln

Ile Pro Ala Tyr Ile Glu Met Asn Ile Pro Trp Leu Tyr Phe Val Asn

Ser Phe Leu Ile Ala Thr Val Tyr Trp Phe Asn Cys His Lys Leu Asn

Leu Lys Asp Ile Gly Leu Pro Leu Asp Pro Phe Val Asn Trp Lys Cys

Cys Phe Ile Pro Leu Thr Ile Pro Asn Leu Glu Gln Ile Glu Lys Pro 135 140

Ile Ser Ile Met Ile Cys

<210> 183

<211> 110

<212> PRT <213> Homo sapiens

<400> 183

His Ala Ser Gly Trp Arg Thr Pro Arg Asp Pro Glu Arg Pro Pro Arg

His Ile Gln Thr Ser Ala Ala Pro Ala Pro Ser Gln Pro Ser Trp Asp

Ser Arg Ala His Pro Thr Gln Arg Arg Asp Pro Gly Pro Pro Gly Pro

Ser Ala Asp Ser Thr Ala His Phe Pro Gly Pro Pro His Thr Ser Gln

Pro Ser Gly Arg Ser Leu Pro Thr Arg Cys Arg Val Pro Pro Ala Leu

Ser Arg Pro Gly Ser Pro Pro Pro Gly Pro Arg Gly Gly Pro Ser Gln

Ala Pro Phe Glu Pro Arg Arg Pro Gly Leu Gly Arg Thr

<210> 184

<211> 56 <212> PRT

<213> Homo sapiens

<400> 184

His Ala Ser Gly Trp Arg Thr Pro Arg Asp Pro Glu Arg Pro Pro Arg

His Ile Gln Thr Ser Ala Ala Pro Ala Pro Ser Gln Pro Ser Trp Asp

Ser Arg Ala His Pro Thr Gln Arg Arg Asp Pro Gly Pro Gly Pro 35 40 45

Ser Ala Asp Ser Thr Ala His Phe 50 55

<210> 185

<211> 54

<212> PRT

<213> Homo sapiens

<400> 185

Pro Gly Pro Pro His Thr Ser Gln Pro Ser Gly Arg Ser Leu Pro Thr 1 5 10 15

Arg Cys Arg Val Pro Pro Ala Leu Ser Arg Pro Gly Ser Pro Pro Pro 20 25 30

Gly Pro Arg Gly Gly Pro Ser Gln Ala Pro Phe Glu Pro Arg Arg Arg 35 40 45

Pro Gly Leu Gly Arg Thr

<210> 186

<211> 723

<212> PRT

<213> Homo sapiens

<400> 186

His Ala Ser Ala Ser Pro Gly Arg Val Asp Ala Asp Ser Asn Ala Val $_{-1}^{1}$ 5 10 15

Ala Ser Gly Pro Arg Thr Pro Ser Gly Pro Thr Arg Gln Glu Arg Leu 20 25 30

Arg Pro Arg Pro Ala Pro Pro Gly Ser Leu Arg Arg Arg Leu Pro 35 40 . 45

Gly Gln Lys Met Cys Ser Arg Val Pro Leu Leu Leu Pro Leu Leu Leu 50 55 60

Leu Leu Ala Leu Gly Pro Gly Val Gln Gly Cys Pro Ser Gly Cys Gln 65 70 75 80

Cys Ser Gln Pro Gln Thr Val Phe Cys Thr Ala Arg Gln Gly Thr Thr 85 90 95

Val Pro Arg Asp Val Pro Pro Asp Thr Val Gly Leu Tyr Val Phe Glu 100 105 110

Asn Gly Ile Thr Met Leu Asp Ala Gly Ser Phe Ala Gly Leu Pro Gly 115 120 125

Leu Gln Leu Leu Asp Leu Ser Gln Asn Gln Ile Ala Ser Leu Pro Ser 130 140

Gly Val Phe Gln Pro Leu Ala Asn Leu Ser Asn Leu Asp Leu Thr Ala 145 150 155 160

Asn Arg Leu His Glu Ile Thr Asn Glu Thr Phe Arg Gly Leu Arg Arg 165 170 175 Leu Glu Arg Leu Tyr Leu Gly Lys Asn Arg Ile Arg His Ile Gln Pro 185 Gly Ala Phe Asp Thr Leu Asp Arg Leu Leu Glu Leu Lys Leu Gln Asp Asn Glu Leu Arg Ala Leu Pro Pro Leu Arg Leu Pro Arg Leu Leu Leu 215 220 Leu Asp Leu Ser His Asn Ser Leu Leu Ala Leu Glu Pro Gly Ile Leu Asp Thr Ala Asn Val Glu Ala Leu Arg Leu Ala Gly Leu Gly Leu Gln 250 Gln Leu Asp Glu Gly Leu Phe Ser Arg Leu Arg Asn Leu His Asp Leu 260 265 Asp Val Ser Asp Asn Gln Leu Glu Arg Val Pro Pro Val Ile Arg Gly 280 Leu Arg Gly Leu Thr Arg Leu Arg Leu Ala Gly Asn Thr Arg Ile Ala Gln Leu Arg Pro Glu Asp Leu Ala Gly Leu Ala Ala Leu Gln Glu Leu 305 310 Asp Val Ser Asn Leu Ser Leu Gln Ala Leu Pro Gly Asp Leu Ser Gly 330 Leu Phe Pro Arg Leu Arg Leu Leu Ala Ala Arg Asn Pro Phe Asn 345 Cys Val Cys Pro Leu Ser Trp Phe Gly Pro Trp Val Arg Glu Ser His Val Thr Leu Ala Ser Pro Glu Glu Thr Arg Cys His Phe Pro Pro Lys 375 Asn Ala Gly Arg Leu Leu Clu Leu Asp Tyr Ala Asp Phe Gly Cys 390 Pro Ala Thr Thr Thr Ala Thr Val Pro Thr Thr Arg Pro Val Val Arg Glu Pro Thr Ala Leu Ser Ser Ser Leu Ala Pro Thr Trp Leu Ser 425 Pro Thr Ala Pro Ala Thr Glu Ala Pro Ser Pro Pro Ser Thr Ala Pro 440 Pro Thr Val Gly Pro Val Pro Gln Pro Gln Asp Cys Pro Pro Ser Thr Cys Leu Asn Gly Gly Thr Cys His Leu Gly Thr Arg His His Leu Ala Cys Leu Cys Pro Glu Gly Phe Thr Gly Leu Tyr Cys Glu Ser Gln Met 490 Gly Gln Gly Thr Arg Pro Ser Pro Thr Pro Val Thr Pro Arg Pro Pro 505 Arg Ser Leu Thr Leu Gly Ile Glu Pro Val Ser Pro Thr Ser Leu Arg 520

Val Gly Leu Gln Arg Tyr Leu Gln Gly Ser Ser Val Gln Leu Arg Ser 530 540

Leu Arg Leu Thr Tyr Arg Asn Leu Ser Gly Pro Asp Lys Arg Leu Val 545 550 555 560

Thr Leu Arg Leu Pro Ala Ser Leu Ala Glu Tyr Thr Val Thr Gln Leu 565 570 575

Arg Pro Asn Ala Thr Tyr Ser Val Cys Val Met Pro Leu Gly Pro Gly 580 590

Arg Val Pro Glu Gly Glu Glu Ala Cys Gly Glu Ala His Thr Pro Pro 595 600 605

Ala Val His Ser Asn His Ala Pro Val Thr Gln Ala Arg Glu Gly Asn 610 620

Leu Pro Leu Leu Ile Ala Pro Ala Leu Ala Ala Val Leu Leu Ala Ala 625 630 635 640

Leu Ala Ala Val Gly Ala Ala Tyr Cys Val Arg Arg Gly Arg Ala Met 645 650 655

Ala Ala Ala Gln Asp Lys Gly Gln Val Gly Pro Gly Ala Gly Pro 660 665 670

Leu Glu Leu Glu Gly Val Lys Val Pro Leu Glu Pro Gly Pro Lys Ala 675 680 685

Thr Glu Ala Val Glu Arg Pro Cys Pro Ala Gly Leu Ser Val Lys Cys 690 695 700

His Ser Trp Ala Ser Lys Ala Trp Pro Gln Ser Pro Leu His Ala Lys 705 710 715 720

Pro Tyr Ile

<210> 187

<211> 51

<212> PRT

<213> Homo sapiens

<400> 187

His Ala Ser Gly Arg Leu Gln Thr Gln Arg Glu Gly Gln Gly Val

1 5 10 15

Gly Arg Arg Arg Thr Glu Glu Gly Thr Glu Thr Gln Ser Lys Gly Gly 25 30

Lys Glu Glu Thr Leu Val Gly Gly Arg His Ser Gly Glu Arg Gly Gly 35 40 45

Trp Ala Glu 50

<210> 188

<211> 59

<212> PRT

<213> Homo sapiens

<400> 188

Pro Arg Val Arg Ala Glu Ser Glu Gly Thr Tyr Asp Thr Tyr Gln His

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10
                                                            15
Val Pro Val Glu Ser Phe Ala Glu Val Leu Leu Arg Thr Gly Lys Leu
Ala Glu Ala Lys Asn Lys Gly Glu Val Phe Pro Thr Thr Glu Val Leu
Leu Gln Leu Ala Ser Glu Ala Leu Pro Asn Asp
<210> 189
<211> 35
<212> PRT
<213> Homo sapiens
<400> 189
Thr Leu Asn His Leu Glu Lys Ser Leu Ala His Leu Glu Thr Leu Ser
His Ser Phe Ile Leu Ser Leu Lys Asn Ser Glu Gln Glu Thr Leu Gln
Lys Tyr Ser
         35
<210> 190
<211> 36
<212> PRT
<213> Homo sapiens
<400> 190
His Leu Tyr Asp Leu Ser Arg Ser Glu Lys Glu Lys Leu His Asp Glu
Ala Val Ala Ile Cys Leu Asp Gly Gln Pro Leu Ala Met Ile Gln Gln
             20
Leu Leu Glu Val
<210> 191
<211> 35
<212> PRT
<213> Homo sapiens
<400> 191
Ala Val Gly Pro Leu Asp Ile Ser Pro Lys Asp Ile Val Gln Ser Ala
Ile Met Lys Ile Ile Ser Ala Leu Ser Gly Gly Ser Ala Asp Leu Gly
                                                       30
Gly Pro Arg
<210> 192
<211> 36
<212> PRT
<213> Homo sapiens
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<400> 192

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Asp Pro Leu Lys Val Leu Glu Gly Val Val Ala Ala Val His Ala Ser
Val Asp Lys Gly Glu Glu Leu Val Ser Pro Glu Asp Leu Leu Glu Trp
Leu Arg Pro Phe
         35
<210> 193
<211> 35
<212> PRT
<213> Homo sapiens
<400> 193
Cys Ala Asp Asp Ala Trp Pro Val Arg Pro Arg Ile His Val Leu Gln
                                      10
Ile Leu Gly Gln Ser Phe His Leu Thr Glu Glu Asp Ser Lys Leu Leu
Val Phe Phe
         35
<210> 194
<211> 37
<212> PRT
<213> Homo sapiens
<400> 194
Arg Thr Glu Ala Ile Leu Lys Ala Ser Trp Pro Gln Arg Gln Val Asp
Ile Ala Asp Ile Glu Asn Glu Glu Asn Arg Tyr Cys Leu Phe Met Glu
Leu Leu Glu Ser Ser
         35
<210> 195
<211> 34
<212> PRT
<213> Homo sapiens
<400> 195
His His Glu Ala Glu Phe Gln His Leu Val Leu Leu Gln Ala Trp
                                      10
Pro Pro Met Lys Ser Glu Tyr Val Ile Thr Asn Asn Pro Trp Val Arg
Leu Ala
```

<212> PRT
<213> Homo sapiens
<400> 196
Thr Val Met Leu Thr Arg Cys Thr Met Glu Asn Lys Glu Gly Leu Gly
1 5 10 15

<210> 196 <211> 36

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Asn Glu Val Leu Lys Met Cys Arg Ser Leu Tyr Asn Thr Lys Gln Met
                                  25
Leu Pro Ala Glu
         35
<210> 197
<211> 35
<212> PRT
<213> Homo sapiens
<400> 197
Gly Val Lys Glu Leu Cys Leu Leu Leu Leu Asn Gln Ser Leu Leu
Pro Ser Leu Lys Leu Leu Glu Ser Arg Asp Glu His Leu His Glu
Met Ala Leu
         35
<210> 198
<211> 36
<212> PRT
<213> Homo sapiens
<400> 198
Glu Gln Ile Thr Ala Val Thr Thr Val Asn Asp Ser Asn Cys Asp Gln
Glu Leu Leu Ser Leu Leu Leu Asp Ala Lys Leu Leu Val Lys Cys Val
Ser Thr Pro Phe
         35
<210> 199
<211> 35
<212> PRT
<213> Homo sapiens
<400> 199
Tyr Pro Arg Ile Val Asp His Leu Leu Ala Ser Leu Gln Gln Gly Arg
Trp Asp Ala Glu Glu Leu Gly Arg His Leu Arg Glu Ala Gly His Glu
Ala Glu Ala
         35
<210> 200
<211> 28
<212> PRT
<213> Homo sapiens
<400> 200
Gly Ser Leu Leu Ala Val Arg Gly Thr His Gln Ala Phe Arg Thr
                                                           15
```

Phe Ser Thr Ala Leu Arg Ala Ala Gln His Trp Val

20 25

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<210> 201
```

<211> 38

<212> PRT

<213> Homo sapiens

<400> 201

Pro Ser Ser Tyr Thr Ala Thr Met Asn Val Ser Trp Ile Ser Leu Arg

Arg Arg Ser Phe Arg Ala Phe Gly Arg Val Trp Thr Cys Ser Gly Leu

Leu Gln Met Thr Ser Ile 35

<210> 202 <211> 33 <212> PRT

<213> Homo sapiens

<400> 202

Lys Gly Lys Leu Ser Leu Val Trp Gln Arg Leu Asp Gly His Phe Cys 10

Arg Thr Leu Glu Glu Ser Val Tyr Ser Ile Ala Ile Ser Leu Ala Gln

Arg

<210> 203

<211> 35

<212> PRT

<213> Homo sapiens

<400> 203

Tyr Ser Val Ser Arg Trp Glu Val Phe Met Thr His Leu Glu Phe Leu

Phe Thr Asp Ser Gly Leu Ser Thr Leu Glu Ile Glu Asn Arg Ala Gln

Asp Leu His 35

<210> 204 <211> 36

<212> PRT

<213> Homo sapiens

<400> 204

Leu Phe Glu Thr Leu Lys Thr Asp Pro Glu Ala Phe His Gln His Met

Val Lys Tyr Ile Tyr Pro Thr Ile Gly Gly Phe Asp His Glu Arg Leu

Gln Tyr Tyr Phe 35

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<210> 205
<211> 35
<212> PRT
<213> Homo sapiens
<400> 205
Thr Leu Leu Glu Asn Cys Gly Cys Ala Asp Leu Gly Asn Cys Ala Ile
Lys Pro Glu Thr His Ile Arg Leu Leu Lys Lys Phe Lys Val Val Ala
Ser Gly Leu
<210> 206
<211> 36
<212> PRT
<213> Homo sapiens
<400> 206
Asn Tyr Lys Lys Leu Thr Asp Glu Asn Met Ser Pro Leu Glu Ala Leu
Glu Pro Val Leu Ser Ser Gln Asn Ile Leu Ser Ile Ser Lys Leu Val
                                   25
Pro Lys Ile Pro
         35
<210> 207
<211> 36
<212> PRT
<213> Homo sapiens
Glu Lys Asp Gly Gln Met Leu Ser Pro Ser Ser Leu Tyr Thr Ile Trp
Leu Gln Lys Leu Phe Trp Thr Gly Asp Pro His Leu Ile Lys Gln Val
                                   25
Pro Gly Ser Ser
         35
<210> 208
<211> 35
<212> PRT
<213> Homo sapiens
<400> 208
Pro Glu Trp Leu His Ala Tyr Asp Val Cys Met Lys Tyr Phe Asp Arg
Leu His Pro Gly Asp Leu Ile Thr Val Val Asp Ala Val Thr Phe Ser
Pro Lys Ala
         35
```

<210> 209

```
<211> 244
```

<212> PRT <213> Homo sapiens

<400> 209

Met Leu Val Tyr Leu Ile Thr Gly Asp Val Lys Phe Gly Leu Leu Ala

Arg Val Gly Cys Cys Leu Thr Val Pro Thr Glu Arg Cys Phe Phe Ser

Phe Cys Ala Ala Val Lys Lys Pro Ala Pro Ala Pro Pro Lys Pro Gly

Asn Pro Pro Pro Gly His Pro Gly Gly Gln Ser Ser Ser Gly Thr Ser

Gln His Pro Pro Ser Leu Ser Pro Lys Pro Pro Thr Arg Ser Pro Ser

Pro Pro Thr Gln His Thr Gly Gln Pro Pro Gly Gln Pro Ser Ala Pro

Ser Gln Leu Ser Ala Pro Arg Arg Tyr Ser Ser Ser Leu Ser Pro Ile

Gln Ala Pro Asn His Pro Pro Pro Gln Pro Pro Thr Gln Ala Thr Pro 120

Leu Met His Thr Lys Pro Asn Ser Gln Gly Pro Pro Asn Pro Met Ala 135 140

Leu Pro Ser Glu His Gly Leu Glu Gln Pro Ser His Thr Pro Pro Gln 150

Thr Pro Thr Pro Pro Ser Thr Pro Pro Leu Gly Lys Gln Asn Pro Ser 170

Leu Pro Ala Pro Gln Thr Leu Ala Gly Gly Asn Pro Glu Thr Ala Gln 185

Pro His Ala Gly Thr Leu Pro Arg Pro Arg Pro Val Pro Lys Pro Arg

Asn Arg Pro Ser Val Pro Pro Pro Gln Pro Pro Gly Val His Ser

Ala Gly Asp Ser Ser Leu Thr Asn Thr Ala Pro Thr Ala Ser Lys Ile 230 235

Val Thr Asp Val

<400> 210

Pro Thr Arg Pro Arg Arg Ser Pro Ser Pro Thr Gln Cys Gly Ala

Arg Arg Glu Pro Arg Arg Lys Leu Ser Ala Ser Ala Arg Gln Ala Arg 20 25

<210> 210

<211> 36

<212> PRT

<213> Homo sapiens

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Arg Arg Arg Ala
 35
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<210> 211

<211> 195

<212> PRT

<213> Homo sapiens

<400> 211

Met Lys Phe Thr Ile Val Phe Ala Gly Leu Leu Gly Val Phe Leu Ala

Pro Ala Leu Ala Asn Tyr Asn Ile Asn Val Asn Asp Asp Asn Asn

Ala Gly Ser Gly Gln Gln Ser Val Ser Val Asn Asn Glu His Asn Val

Ala Asn Val Asp Asn Asn Asn Gly Trp Asp Ser Trp Asn Ser Ile Trp

Asp Tyr Gly Asn Gly Phe Ala Ala Thr Arg Leu Phe Gln Lys Lys Thr

Cys Ile Val His Lys Met Asn Lys Glu Val Met Pro Ser Ile Gln Ser

Leu Asp Ala Leu Val Lys Glu Lys Lys Leu Gln Gly Lys Gly Pro Gly

Gly Pro Pro Lys Gly Leu Met Tyr Ser Val Asn Pro Asn Lys Val

Asp Asp Leu Ser Lys Phe Gly Lys Asn Ile Ala Asn Met Cys Arg Gly 135 140

Ile Pro Thr Tyr Met Ala Glu Glu Met Gln Glu Ala Ser Leu Phe Phe 155

Tyr Ser Gly Thr Cys Tyr Thr Thr Ser Val Leu Trp Ile Val Asp Ile

Ser Phe Cys Gly Asp Thr Gly Gly Glu Leu Asn Asn Phe Leu Lys Pro 185 190

Leu Trp Ile 195

<210> 212

<211> 182 <212> PRT

<213> Homo sapiens

<400> 212

Met Lys Phe Thr Ile Val Phe Ala Gly Leu Leu Gly Val Phe Leu Ala

Pro Ala Leu Ala Asn Tyr Asn Ile Asn Val Asn Asp Asp Asn Asn

Ala Gly Ser Gly Gln Gln Ser Val Ser Val Asn Asn Glu His Asn Val 40

Ala Asn Val Asp Asn Asn Gly Trp Asp Ser Trp Asn Ser Ile Trp

50 55 60 Asp Tyr Gly Asn Gly Phe Ala Ala Thr Arg Leu Phe Gln Lys Lys Thr Cys Ile Val His Lys Met Asn Lys Glu Val Met Pro Ser Ile Gln Ser Leu Asp Ala Leu Val Lys Glu Lys Lys Leu Gln Gly Lys Gly Pro Gly Gly Pro Pro Pro Lys Gly Leu Met Tyr Ser Val Asn Pro Asn Lys Val 120 Asp Asp Leu Ser Lys Phe Gly Lys Asn Ile Ala Asn Met Cys Arg Gly Ile Pro Thr Tyr Met Ala Glu Glu Met Gln Glu Ala Ser Leu Phe Phe Tyr Ser Gly Thr Cys Tyr Thr Thr Ser Val Leu Trp Ile Val Asp Ile 170 Ser Phe Cys Gly Asp Thr 180 <210> 213 <211> 13 <212> PRT <213> Homo sapiens <400> 213 Gly Gly Glu Leu Asn Asn Phe Leu Lys Pro Leu Trp Ile <210> 214 <211> 171 <212> PRT <213> Homo sapiens <400> 214 Phe Ile Phe Ser Val Lys Lys Lys Thr Asp Asp Gly Pro Ser Leu 10 Gly Ala Gln Asp Gln Arg Ser Thr Pro Thr Asn Gln Lys Gly Ser Ile Ile Pro Asn Asn Ile Arg His Lys Phe Gly Ser Asn Val Val Asp Gln Leu Val Ser Glu Glu Gln Ala Gln Lys Ala Ile Asp Glu Val Phe Glu Gly Gln Lys Arg Ala Ser Ser Trp Pro Ser Arg Thr Gln Asn Pro Val Glu Ile Ser Ser Val Phe Ser Asp Tyr Tyr Asp Leu Gly Tyr Asn Met 85 90 95 Arg Ser Asn Leu Phe Arg Gly Ala Ala Glu Glu Thr Lys Ser Leu Met 100 105

Lys Ala Ser Tyr Thr Pro Glu Val Ile Glu Lys Ser Val Arg Asp Leu

125

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Glu His Trp His Gly Arg Lys Thr Asp Asp Leu Gly Arg Trp His Gln
                         135
Lys Asn Ala Met Asn Leu Asn Leu Gln Lys Ala Leu Glu Glu Lys Tyr
145
                    150
                                         155
                                                              160
Gly Glu Asn Ser Lys Ser Lys Ser Ser Lys Tyr
                165
<210> 215
<211> 31
<212> PRT
<213> Homo sapiens
<400> 215
Gly Ser Ile Ile Pro Asn Asn Ile Arg His Lys Phe Gly Ser Asn Val
Val Asp Gln Leu Val Ser Glu Glu Gln Ala Gln Lys Ala Ile Asp
             20
<210> 216
<211> 33
<212> PRT
<213> Homo sapiens
<400> 216
Glu Val Phe Glu Gly Gln Lys Arg Ala Ser Ser Trp Pro Ser Arg Thr
Gln Asn Pro Val Glu Ile Ser Ser Val Phe Ser Asp Tyr Tyr Asp Leu
             20
Gly
<210> 217
<211> 40
<212> PRT
<213> Homo sapiens
<400> 217
Tyr Asn Met Arg Ser Asn Leu Phe Arg Gly Ala Ala Glu Glu Thr Lys
Ser Leu Met Lys Ala Ser Tyr Thr Pro Glu Val Ile Glu Lys Ser Val
Arg Asp Leu Glu His Trp His Gly
         35
<210> 218
<211> 38
<212> PRT
<213> Homo sapiens
```

Arg Lys Thr Asp Asp Leu Gly Arg Trp His Gln Lys Asn Ala Met Asn

Leu Asn Leu Gln Lys Ala Leu Glu Glu Lys Tyr Gly Glu Asn Ser Lys

10

15

<400> 218

20 25 30

Ser Lys Ser Ser Lys Tyr 35

<210> 219 <211> 39

<212> PRT

<213> Homo sapiens

<400> 219

His Glu Ser Ala Arg Gly Arg Trp Glu Gly Gly Gly Arg Arg Ala Cys $1 \hspace{1.5cm} 1 \hspace{1.5cm} 1 \hspace{1.5cm} 15$

Arg Gly Ser Leu Gly Leu Ala Arg Ala Gln Gly Ala Glu Arg Val Thr

Ser Ser Glu Gln Arg Pro Ala 35

<210> 220

<211> 160

<212> PRT

<213> Homo sapiens

<400> 220

Ser Gln Val Pro Lys Arg Thr Asp Ser Ser Glu Pro Cys Gly Leu Ser

Asp Leu Cys Arg Ser Leu Met Thr Lys Pro Gly Cys Ser Gly Tyr Cys

Leu Ser His Gln Leu Leu Phe Phe Leu Trp Ala Arg Met Arg Gly Cys

Thr Gln Gly Pro Leu Gln Gln Ser Gln Asp Tyr Ile Thr Phe Cys Ala

Asn Met Met Asp Leu Asn Arg Arg Ala Glu Ala Ile Gly Tyr Ala Tyr

Pro Thr Arg Asp Ile Phe Met Glu Asn Ile Met Phe Cys Gly Met Gly 90

Gly Phe Ser Asp Phe Tyr Lys Leu Arg Trp Leu Glu Ala Ile Leu Ser

Trp Gln Lys Gln Glu Glu Cys Phe Gly Glu Pro Asp Ala Glu Asp 115 120 125

Glu Glu Leu Ser Lys Ala Ile Gln Tyr Gln Gln His Phe Ser Arg Arg 135

Val Lys Arg Arg Glu Lys Gln Phe Pro Glu Tyr Trp Lys Trp Cys Pro 155

<210> 221

<211> 39

<212> PRT

<213> Homo sapiens

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126
<400> 221
Ser Gln Val Pro Lys Arg Thr Asp Ser Ser Glu Pro Cys Gly Leu Ser
Asp Leu Cys Arg Ser Leu Met Thr Lys Pro Gly Cys Ser Gly Tyr Cys
Leu Ser His Gln Leu Leu Phe
         35
<210> 222
<211> 36
<212> PRT
<213> Homo sapiens
<400> 222
Phe Leu Trp Ala Arg Met Arg Gly Cys Thr Gln Gly Pro Leu Gln Gln 1 5 10 15
Ser Gln Asp Tyr Ile Thr Phe Cys Ala Asn Met Met Asp Leu Asn Arg
Arg Ala Glu Ala
         35
<210> 223
<211> 44
<212> PRT
<213> Homo sapiens
```

<400> 223

Ile Gly Tyr Ala Tyr Pro Thr Arg Asp Ile Phe Met Glu Asn Ile Met

Phe Cys Gly Met Gly Gly Phe Ser Asp Phe Tyr Lys Leu Arg Trp Leu

Glu Ala Ile Leu Ser Trp Gln Lys Gln Gln Glu Gly

<210> 224

<211> 41

<212> PRT

<213> Homo sapiens

<400> 224

Cys Phe Gly Glu Pro Asp Ala Glu Asp Glu Glu Leu Ser Lys Ala Ile

Gln Tyr Gln Gln His Phe Ser Arg Arg Val Lys Arg Arg Glu Lys Gln 30

Phe Pro Glu Tyr Trp Lys Trp Cys Pro

<210> 225

<211> 138 <212> PRT

<213> Homo sapiens

<400> 225

Met Thr Lys Pro Gly Cys Ser Gly Tyr Cys Leu Ser His Gln Leu Leu
1 10 15

Phe Phe Leu Trp Ala Arg Met Arg Gly Cys Thr Gln Gly Pro Leu Gln 20 25 30

Gln Ser Gln Asp Tyr Ile Thr Phe Cys Ala Asn Met Met Asp Leu Asn $35 \hspace{1.5cm} 40 \hspace{1.5cm} 45$

Arg Arg Ala Glu Ala Ile Gly Tyr Ala Tyr Pro Thr Arg Asp Ile Phe $50 \hspace{1cm} 55 \hspace{1cm} 60$

Met Glu Asn Ile Met Phe Cys Gly Met Gly Gly Phe Ser Asp Phe Tyr 65 70 75 80

Lys Leu Arg Trp Leu Glu Ala Ile Leu Ser Trp Gln Lys Gln Glu 85 90 95

Gly Cys Phe Gly Glu Pro Asp Ala Glu Asp Glu Glu Leu Ser Lys Ala 100 105 110

Ile Gln Tyr Gln Gln His Phe Ser Arg Arg Val Lys Arg Arg Glu Lys
115 120 125

Gln Phe Pro Glu Tyr Trp Lys Trp Cys Pro 130 135

<210> 226

<211> 92

<212> PRT

<213> Homo sapiens

<400> 226

Phe Cys Ala Asn Met Met Asp Leu Asn Arg Arg Ala Glu Ala Ile Gly
1 10 15

Tyr Ala Tyr Pro Thr Arg Asp Ile Phe Met Glu Asn Ile Met Phe Cys

Gly Met Gly Gly Phe Ser Asp Phe Tyr Lys Leu Arg Trp Leu Glu Ala 35 40 45

Ile Leu Ser Trp Gln Lys Gln Gln Glu Gly Cys Phe Gly Glu Pro Asp 50 55 60

Ala Glu Asp Glu Glu Leu Ser Lys Ala Ile Gln Tyr Gln Gln His Phe 65 70 75 80

Ser Arg Arg Val Lys Arg Arg Glu Lys Gln Phe Pro 85 90

<210> 227

<211> 119

<212> PRT

<213> Homo sapiens

<400> 227

Met Ala Ser Leu Gly Leu Leu Leu Leu Leu Leu Thr Ala Leu Pro
1 5 10 15

Pro Leu Trp Ser Ser Ser Leu Pro Gly Leu Asp Thr Ala Glu Ser Lys 20 25 30

Ala Thr Ile Ala Asp Leu Ile Leu Ser Ala Leu Glu Arg Ala Thr Val

35 40 45 Phe Leu Glu Gln Arg Leu Pro Glu Ile Asn Leu Asp Gly Met Val Gly 55 Val Arg Val Leu Glu Glu Gln Leu Lys Ser Val Arg Glu Lys Trp Ala Gln Glu Pro Leu Gln Pro Leu Ser Leu Arg Val Gly Met Leu Gly Glu Lys Leu Glu Ala Ala Ile Gln Arg Ser Leu His Tyr Leu Lys Leu 105 Ser Asp Pro Lys Tyr Leu Arg 115 <210> 228 <211> 175 <212> PRT <213> Homo sapiens <400> 228 His Glu Ser Ala Arg Gly Arg Trp Glu Gly Gly Arg Arg Ala Cys Arg Gly Ser Leu Gly Leu Ala Arg Ala Gln Gly Ala Glu Arg Val Thr Ser Ser Glu Gln Arg Pro Ala Met Ala Ser Leu Gly Leu Leu Leu Leu Leu Leu Thr Ala Leu Pro Pro Leu Trp Ser Ser Leu Pro Gly Leu Asp Thr Ala Glu Ser Lys Ala Thr Ile Ala Asp Leu Ile Leu Ser Ala Leu Glu Arg Ala Thr Val Phe Leu Glu Gln Arg Leu Pro Glu Ile 90 Asn Leu Asp Gly Met Val Gly Val Arg Val Leu Glu Glu Gln Leu Lys Ser Val Arg Glu Lys Trp Ala Gln Glu Pro Leu Leu Gln Pro Leu Ser 120 Leu Arg Val Gly Met Leu Gly Glu Lys Leu Glu Ala Ala Ile Gln Arg 135 Ser Leu His Tyr Leu Lys Leu Ser Asp Pro Lys Tyr Leu Arg Gly Arg Thr Ala Ala Ser Pro Ala Ala Ser Gln Thr Ser Ala Gly Ala Ser 165 170 <210> 229 <211> 49 <212> PRT <213> Homo sapiens <220>

<221> SITE <222> (25)

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<223> Xaa equals any of the naturally occurring L-amino acids <400> 229
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Lys Ser Val Gly Arg Ser Ser Pro Thr Arg Arg Tyr Arg Ala Ala Val 1 5 10 15

Gly Glu Thr Pro Ala Gly Ala Gln Xaa Gln Leu Arg Gly Arg Glu Gly 20 25 30

Arg

<210> 230

<211> 55

<212> PRT

<213> Homo sapiens

<400> 230

Ile Phe Leu Phe Tyr Leu Pro Pro Ser Pro Pro Ser Arg Leu Leu Val 1 5 10 \cdot 15

Pro Gly Tyr Trp Cys Leu Ala Ser Trp Gln Gly Pro Gly Thr Trp Thr 20 25 30

Ile Ser His Thr Thr Pro Arg Gly Gly Ile Phe Phe Tyr Phe Pro Tyr 35 40 45

Glu Lys Gln Ile Phe Leu Arg

<210> 231

<211> 479

<212> PRT

<213> Homo sapiens

<400> 231

Met Val Leu Leu His Trp Cys Leu Leu Trp Leu Leu Phe Pro Leu Ser 1 5 10 15

Ser Arg Thr Gln Lys Leu Pro Thr Arg Asp Glu Glu Leu Phe Gln Met 20 25 30

Gln Ile Arg Asp Lys Ala Phe Phe His Asp Ser Ser Val Ile Pro Asp $35 \hspace{1cm} 40 \hspace{1cm} 45$

Gly Ala Glu Ile Ser Ser Tyr Leu Phe Arg Asp Thr Pro Lys Arg Tyr 50 60

Phe Phe Val Val Glu Glu Asp Asn Thr Pro Leu Ser Val Thr Val Thr 65 70 75 80

Pro Cys Asp Ala Pro Leu Glu Trp Lys Leu Ser Leu Gln Glu Leu Pro 85 90 95

Glu Asp Arg Ser Gly Glu Gly Ser Gly Asp Leu Glu Pro Leu Glu Gln
100 105 110

Gln Lys Gln Gln Ile Ile Asn Glu Glu Gly Thr Glu Leu Phe Ser Tyr 115 120 125

Lys Gly Asn Asp Val Glu Tyr Phe Ile Ser Ser Ser Pro Ser Gly

	130					135					140				
Leu 145	Tyr	Gln	Leu	Asp	Leu 150	Leu	Ser	Thr	Glu	Lys 155	Asp	Thr	His	Phe	Lys 160
Val	Tyr	Ala	Thr	Thr 165	Thr	Pro	Glu	Ser	Asp 170	Gln	Pro	Tyr	Pro	Glu 175	Leu
Pro	Tyr	Asp	Pro 180	Arg	Val	Asp	Val	Thr 185	Ser	Leu	Gly	Arg	Thr 190	Thr	Val
Thr	Leu	Ala 195	Trp	Lys	Pro	Ser	Pro 200	Thr	Ala	Ser	Leu	Leu 205	Lys	Gln	Pro
Ile	Gln 210	Tyr	Суѕ	Val	Val	Ile 215	Asn	Lys	Glu	His	Asn 220	Phe	Lys	Ser	Leu
Cys 225	Ala	Val	Glu	Ala	Lys 230	Leu	Ser	Ala	Asp	Asp 235	Ala	Phe	Met	Met	Ala 240
Pro	Lys	Pro	Gly	Leu 245	Asp	Phe	Ser	Pro	Phe 250	Asp	Phe	Ala	His	Phe 255	Gly
Phe	Pro	Ser	Asp 260	Asn	Ser	Gly	Lys	Glu 265	Arg	Ser	Phe	Gln	Ala 270	Lys	Pro
Ser	Pro	Lys 275	Leu	Gly	Arg	His	Val 280	Tyr	Ser	Arg	Pro	Lys 285	Val	Asp	Ile
Gln	Lys 290	Ile	Cys	Ile	Gly	Asn 295	Lys	Asn	Ile	Phe	Thr 300	Val	Ser	Asp	Leu
Lys 305	Pro	Asp	Thr	Gln	Tyr 310	Tyr	Phe	Asp	Val	Phe 315	Val	Val	Asn	Ile	Asn 320
Ser	Asn	Met	Ser	Thr 325	Ala	Tyr	Val	Gly	Thr 330	Phe	Ala	Arg	Thr	Lys 335	Glu
Glu	Ala	Lys	Gln 340	Lys	Thr	Val	Glu	Leu 345	Lys	Asp	Gly	Lys	Ile 350	Thr	Asp
Val	Phe	Val 355	Lys	Arg	Lys	Gly	Ala 360	Lys	Phe	Leu	Arg	Phe 365	Ala	Pro	Val
Ser	Ser 370	His	Gln	Lys	Val	Thr 375	Phe	Phe	Ile	His	Ser 380	Cys	Leu	Asp	Ala
Val 385	Gln	Ile	Gln	Val	Arg 390	Arg	Asp	Gly	Lys	Leu 395	Leu	Leu	Ser	Gln	Asn 400
Val	Glu	Gly	Ile	Gln 405	Gln	Phe	Gln	Leu	Arg 410	Gly	Lys	Pro	Lys	Ala 415	Lys
Туr	Leu	Val	Arg 420	Leu	Lys	Gly	Asn	Lys 425	Lys	Gly	Ala	Ser	Met 430	Leu	Lys
Ile	Leu	Ala 435	Thr	Thr	Arg	Pro	Thr 440	Lys	Gln	Ser	Phe	Pro 445	Ser	Leu	Pro
Glu	Asp 450	Thr	Arg	Ile	Lys	Ala 455	Phe	Asp	Lys	Leu	Arg 460	Thr	Cys	Ser	Ser
Ala 465	Thr	Val	Ala	Trp	Leu 470	Gly	Thr	Gln	Glu	Arg 475	Asn	Lys	Phe	Cys	

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<210> 232
<211> 62
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (1)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 232
Xaa Arg Gly Met Val Phe Gly Gly Val Val Pro Tyr Val Pro Gln Tyr
Arg Asp Ile Arg Arg Thr Gln Asn Ala Asp Gly Phe Ser Thr Tyr Val
Cys Leu Val Leu Leu Val Ala Asn Ile Leu Arg Ile Leu Phe Trp Phe
Gly Arg Arg Phe Glu Ser Pro Leu Leu Trp Gln Ser Ala Ile
<210> 233
<211> 229
<212> PRT
<213> Homo sapiens
<400> 233
Met Val Phe Gly Gly Val Val Pro Tyr Val Pro Gln Tyr Arg Asp Ile
1 10 15
Arg Arg Thr Gln Asn Ala Asp Gly Phe Ser Thr Tyr Val Cys Leu Val
Leu Leu Val Ala Asn Ile Leu Arg Ile Leu Phe Trp Phe Gly Arg Arg
Phe Glu Ser Pro Leu Leu Trp Gln Ser Ala Ile Met Ile Leu Thr Met 50 55 60
Leu Leu Met Leu Lys Leu Cys Thr Glu Val Arg Val Ala Asn Glu Leu
Asn Ala Arg Arg Arg Ser Phe Thr Asp Phe Asp Pro His His Phe Trp
Gln Trp Ser Ser Phe Ser Asp Tyr Val Gln Cys Val Leu Ala Phe Thr
                                 105
Gly Val Ala Gly Tyr Ile Thr Tyr Leu Ser Ile Asp Ser Ala Leu Phe
Val Glu Thr Leu Gly Phe Leu Ala Val Leu Thr Glu Ala Met Leu Gly
                        135
Val Pro Gln Leu Tyr Arg Asn His Arg His Gln Ser Thr Glu Gly Met
                    150
                                         155
                                                              160
Ser Ile Lys Met Val Leu Met Trp Thr Ser Gly Asp Ala Phe Lys Thr
                                     170
Ala Tyr Phe Leu Leu Lys Gly Ala Pro Leu Gln Phe Ser Val Cys Gly
```

185

Leu Leu Gln Val Leu Val Asp Leu Ala Ile Leu Gly Gln Ala Tyr Ala

Phe Ala Arg His Pro Gln Lys Pro Ala Pro His Ala Val His Pro Thr

Gly Thr Lys Ala Leu 225

<210> 234

<211> 28 <212> PRT

<213> Homo sapiens

<400> 234

Met Val Phe Gly Gly Val Val Pro Tyr Val Pro Gln Tyr Arg Asp Ile
1 10 15 10

Arg Arg Thr Gln Asn Ala Asp Gly Phe Ser Thr Tyr

<210> 235

<211> 12 <212> PRT

<213> Homo sapiens

<400> 235

Gly Arg Arg Phe Glu Ser Pro Leu Leu Trp Gln Ser 5

<210> 236

<211> 44

<212> PRT

<213> Homo sapiens

<400> 236

Gly Val Pro Gln Leu Tyr Arg Asn His Arg His Gln Ser Thr Glu Gly

Met Ser Ile Lys Met Val Leu Met Trp Thr Ser Gly Asp Ala Phe Lys

Thr Ala Tyr Phe Leu Leu Lys Gly Ala Pro Leu Gln

<210> 237

<211> 25

<212> PRT

<213> Homo sapiens

<400> 237

Gln Ala Tyr Ala Phe Ala Arg His Pro Gln Lys Pro Ala Pro His Ala 10

Val His Pro Thr Gly Thr Lys Ala Leu

<210> 238

<211> 32

<212> PRT

<213> Homo sapiens

Asp Pro His His Phe Trp Gln Trp Ser Ser Phe Ser Asp Tyr Val Gln
20 25 30

<210> 239

<211> 383

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (39)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 239

Arg Thr Gly Trp Leu Gly Pro Pro Gly Ser Pro Pro Pro Pro Pro His 1 5 10 15

Val Arg Gly Met Pro Gly Cys Pro Cys Pro Gly Cys Gly Met Ala Gly
20 25 30

Pro Arg Leu Leu Phe Leu Xaa Ala Leu Ala Leu Glu Leu Leu Gly Arg 35 40 45

Ala Gly Gly Ser Gln Pro Ala Leu Arg Ser Arg Gly Thr Ala Thr Ala 50 60

Cys Arg Leu Asp Asn Lys Glu Ser Glu Ser Trp Gly Ala Leu Leu Ser 65 70 75 80

Gly Glu Arg Leu Asp Thr Trp Ile Cys Ser Leu Leu Gly Ser Leu Met 85 90 95

Val Gly Leu Ser Gly Val Phe Pro Leu Leu Val Ile Pro Leu Glu Met 100 105 110

Gly Thr Met Leu Arg Ser Glu Ala Gly Ala Trp Arg Leu Lys Gln Leu 115 120 125

Leu Ser Phe Ala Leu Gly Gly Leu Leu Gly Asn Val Phe Leu His Leu 130 135 140

Leu Pro Glu Ala Trp Ala Tyr Thr Cys Ser Ala Ser Pro Gly Gly Glu 145 150 155 160

Gly Gln Ser Leu Gln Gln Gln Gln Leu Gly Leu Trp Val Ile Ala 165 170 175

Gly Ile Leu Thr Phe Leu Ala Leu Glu Lys Met Phe Leu Asp Ser Lys 180 185 190

Glu Glu Gly Thr Ser Gln Ala Pro Asn Lys Asp Pro Thr Ala Ala Ala 195 200 205

Ala Ala Leu Asn Gly Gly His Cys Leu Ala Gln Pro Ala Ala Glu Pro 210 215 220

Gly Leu Gly Ala Val Val Arg Ser Ile Lys Val Ser Gly Tyr Leu Asn

225 230 235 240 Leu Leu Ala Asn Thr Ile Asp Asn Phe Thr His Gly Leu Ala Val Ala 245 250 Ala Ser Phe Leu Val Ser Lys Lys Ile Gly Leu Leu Thr Thr Met Ala Ile Leu Leu His Glu Ile Pro His Glu Val Gly Asp Phe Ala Ile Leu 280 Leu Arg Ala Gly Phe Asp Arg Trp Ser Ala Ala Lys Leu Gln Leu Ser Thr Ala Leu Gly Gly Leu Leu Gly Ala Gly Phe Ala Ile Cys Thr Gln Ser Pro Lys Gly Val Glu Glu Thr Ala Ala Trp Val Leu Pro Phe Thr Ser Gly Gly Phe Leu Tyr Ile Ala Leu Val Asn Val Leu Pro Asp Leu Leu Glu Glu Glu Asp Pro Trp Arg Ser Leu Gln Gln Leu Leu Leu Cys Ala Gly Ile Val Val Met Val Leu Phe Ser Leu Phe Val Asp <210> 240 <211> 24 <212> PRT <213> Homo sapiens <400> 240 Arg Val Arg Lys Trp Glu Arg Ser Gln Pro Arg Leu Leu Tyr Thr Gly Lys Leu Ser Gly Pro Gln Ala Arg 20 <210> 241 <211> 97 <212> PRT <213> Homo sapiens <400> 241 Ser Pro Ala Trp Ala Gln Leu Pro Gln Ser His Pro Leu Pro Thr Ala Ser Gly Leu Lys Asn Ile Pro Gly Ile Arg Gly Ala Leu Thr Thr Arg Pro Ser Glu Ser Pro Pro Ala Trp Asn Leu Ala Ile Ser Asn Leu Leu 40 Pro Ser Ala Ser Trp Ile Lys Leu Glu Thr Ala Gly Thr Pro Gly Met Ser Leu Pro Ile Leu Pro Cys Leu Cys Ser Phe Leu Asp Leu Thr Tyr Tyr Phe Phe Cys Phe Cys Phe His Pro Ser Cys Leu Ser Cys Pro Glu 90

Gly

130

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<210> 242
<211> 36
<212> PRT
<213> Homo sapiens
<400> 242
Arg Pro Ser Glu Ser Pro Pro Ala Trp Asn Leu Ala Ile Ser Asn Leu
Leu Pro Ser Ala Ser Trp Ile Lys Leu Glu Thr Ala Gly Thr Pro Gly
Met Ser Leu Pro
         35
<210> 243
<211> 30
<212> PRT
<213> Homo sapiens
<400> 243
Ile Leu Pro Cys Leu Cys Ser Phe Leu Asp Leu Thr Tyr Tyr Phe Phe
Cys Phe Cys Phe His Pro Ser Cys Leu Ser Cys Pro Glu Gly
<210> 244
<211> 203
<212> PRT
<213> Homo sapiens
<400> 244
Met Gly Arg Asp Ile Pro Gly Val Pro Ala Val Ser Ser Leu Ile Gln
Glu Ala Leu Gly Arg Arg Leu Leu Met Ala Arg Phe Gln Ala Gly Gly
Asp Ser Glu Gly Arg Val Val Asn Ala Pro Leu Ile Pro Gly Ile Phe
                             40
Phe Arg Pro Glu Ala Val Gly Arg Gly Trp Leu Cys Gly Ser Trp Ala
Gln Ala Gly Leu Gln Asn His Pro Leu Trp Gly Asp Asp Gly Gln 65 70 75 80
Phe Gln Gly Pro Pro Ala Ile His Trp Ala Val Trp Leu Arg Leu Ser
Ala Val Ala Thr Glu Ala Leu Ser Gln Ala Thr Asp Ala Lys Asp Gly
Gln Asp Asp Gln Glu Asp Asp Glu Asp Pro His Gly Ala Arg Glu
                            120
Glu Leu Val Leu Leu Ala Ala Ala Val Thr Thr Ala Phe Glu Ser Phe
```

140

```
Gly Ala Gly Lys Asp Glu Thr Thr Phe Gly Cys Asn Leu Leu Gly Ala
 Ser Gln Gln Ala Glu Gln Gln Gly Gly Arg Glu Ala Gly Asp Pro Ser
                                                                           165
 Leu Gly His Pro Gly Leu Gly Ala Thr Glu Leu Ser Cys Val Glu Lys
Ala Gly Leu Arg Pro Leu Pro Leu Pro Asp Ala
 <210> 245
<211> 13
<212> PRT
 <213> Homo sapiens
 <400> 245
Ala Arg Ala Arg Gly Lys Ile Glu Ser Asn Leu Ile 1 \hspace{1cm} 1 \hspace{1cm
 <210> 246
 <211> 10
 <212> PRT
 <213> Homo sapiens
 <400> 246
Gly Pro Gln Val Asp Trp Gln Arg Pro Leu
 <210> 247
 <211> 77
 <212> PRT
 <213> Homo sapiens
 <400> 247
His Met Leu Trp Asn Arg Arg Lys Leu Arg Cys Cys Phe His Lys Phe
Val Leu Ser Leu Ala Leu Gly Pro Ser Phe Leu Phe Trp Lys Asn Leu
 Ser Glu Lys Arg Asp Leu Ser Ser Val Cys Ser Ala Phe Leu Tyr Lys
                                                                                                                                         40
 Thr Arg Asn Gly Val Asn Ser Arg Asp Met Glu Val Ile Thr Pro Asp
 Ser Leu Cys Trp Leu Leu Arg Phe Ser Gln Gly Glu Val
                                                                                                   70
<210> 248
<211> 76
 <212> PRT
 <213> Homo sapiens
 <400> 248
Met Leu Leu Gln Ser Leu Phe Phe Pro Met Ser Trp Gly Ser Gly
                                                                                                                                                                              10
                                                                                                                                                                                                                                                                             15
```

Gly Gly Lys Gly Arg Asp Leu Pro Arg Glu Lys Pro Thr Thr

20 25 30

Cys Pro Val Phe Asp Arg Leu Phe Asp Ile Phe Ala Lys Ile Pro Leu 35 40 45

Val Glu Ser Gln Ala Ser Cys Ala Arg Ile Gly Ile Ala Ala Ser His 50 60

Trp Arg Leu Asp Cys Ser Val Asp Gly Met Gln Ala
65 70 75

<210> 249

<211> 284

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (187)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 249

Met Val Thr Arg Ala Gly Ala Gly Thr Ala Val Ala Gly Ala Val Val 1 5 15

Val Ala Leu Leu Ser Ala Ala Leu Ala Leu Tyr Gly Pro Pro Leu Asp 20 25 30

Ala Val Leu Glu Arg Ala Phe Ser Leu Arg Lys Ala His Ser Ile Lys $35 \hspace{1cm} 40 \hspace{1cm} 45$

Asp Met Glu Asn Thr Leu Gln Leu Val Arg Asn Ile Ile Pro Pro Leu
50 60

Ser Ser Thr Lys His Lys Gly Gln Asp Gly Arg Ile Gly Val Val Gly 65 70 75 80

Gly Cys Gln Glu Tyr Thr Gly Ala Pro Tyr Phe Ala Arg Ile Ser Ala 85 90 95

Leu Lys Val Gly Ala Asp Leu Ser His Val Phe Cys Ala Ser Ala Ala 100 105 110

Ala Pro Val Ile Lys Ala Tyr Ser Pro Glu Leu Ile Val His Pro Val 115 120 125

Leu Asp Ser Pro Asn Ala Val His Glu Val Glu Lys Trp Leu Pro Arg 130 135 140

Leu His Ala Leu Val Val Gly Pro Gly Leu Gly Arg Asp Asp Ala Leu 145 150 155 160

Leu Arg Asn Val Gln Gly Ile Leu Glu Val Ser Lys Ala Arg Asp Ile 165 170 175

Pro Val Val Ile Asp Ala Asp Gly Leu Trp Xaa Val Ala Gln Gln Pro 180 185 190

Ala Leu Ile His Gly Tyr Arg Lys Ala Val Leu Thr Pro Asn His Val 195 200 205

Glu Phe Ser Arg Leu Tyr Asp Ala Val Leu Arg Gly Pro Met Asp Ser 210 215 220

Asp Asp Ser His Gly Ser Val Leu Arg Leu Ser Gln Ala Leu Gly Asn

230 225 235 240 Val Thr Val Val Gln Lys Gly Glu Arg Asp Ile Leu Ser Asn Gly Gln 245 250 Gln Val Leu Val Cys Ser Gln Glu Gly Ser Ser Ala Gly Val Glu Gly Lys Gly Thr Ser Cys Arg Ala Pro Trp Ala Ser Trp 280 <210> 250 <211> 114 <212> PRT <213> Homo sapiens <400> 250 Met Ala Trp Val Glu Met Ile Val His Pro Val Leu Asp Ser Pro Asn Ala Val His Glu Val Glu Lys Trp Leu Pro Arg Leu His Ala Leu Val Val Gly Thr Gly Leu Gly Arg Asp Asp Ala Leu Leu Arg Asn Val Gln 40 Gly Ile Leu Glu Val Ser Lys Ala Arg Asp Ile Pro Val Val Ile Asp Ala Asp Gly Leu Trp Leu Val Ala Gln Gln Pro Ala Leu Ile His Gly 70 Tyr Arg Lys Ala Val Leu Thr Pro Asn His Val Glu Phe Ser Arg Leu Tyr Asp Ala Val Leu Arg Gly Pro Met Asp Ser Asp Asp Arg Cys Leu 100 105 Val Pro <210> 251 <211> 202 <212> PRT <213> Homo sapiens <400> 251 Glu Phe Gly Thr Arg Leu Arg Ala Val Ala Ser Val Gly Ala Ala Leu Ile Leu Phe Pro Cys Leu Leu Tyr Gly Ala Tyr Ala Phe Leu Pro Phe 20 Asp Val Pro Arg Leu Pro Thr Met Ser Ser Arg Leu Ile Tyr Thr Leu 40 Arg Cys Gly Val Phe Ala Thr Phe Pro Ile Val Leu Gly Ile Leu Val Tyr Gly Leu Ser Leu Leu Cys Phe Ser Ala Leu Arg Pro Phe Gly Glu

Pro Arg Arg Glu Val Glu Ile His Arg Arg Tyr Val Ala Gln Ser Val

90

Gln Leu Phe Ile Leu Tyr Phe Phe Asn Leu Ala Val Leu Ser Thr Tyr 100 105

Leu Pro Gln Asp Thr Leu Lys Leu Leu Pro Leu Leu Thr Gly Leu Phe 120

Ala Val Ser Arg Leu Ile Tyr Trp Leu Thr Phe Ala Val Gly Arg Ser

Phe Arg Gly Phe Gly Tyr Gly Leu Thr Phe Leu Pro Leu Leu Ser Met

Leu Met Trp Asn Leu Tyr Tyr Met Phe Val Val Glu Pro Glu Arg Met 170

Leu Thr Ala Thr Glu Ser Arg Leu Asp Tyr Pro Asp His Ala Arg Ser 185

Ala Ser Asp Tyr Arg Pro Arg Pro Trp Gly

<210> 252

<211> 22 <212> PRT

<213> Homo sapiens

<400> 252

Thr Trp Gly His Val His Thr Thr Ala Arg Ala Tyr Cys Val Ser Arg

Trp Leu Val Cys Leu Arg

<210> 253

<211> 30

<212> PRT <213> Homo sapiens

<400> 253

Gly Thr Ser Phe Ser Ile Leu Ser Leu Ala Ala Cys Leu Val Val Glu

Ala Val Val Trp Lys Ser Val Thr Lys Asn Arg Thr Ser Tyr 25

<210> 254

<211> 241

<212> PRT

<213> Homo sapiens

<400> 254

His Trp Gly Leu Met Leu Phe Tyr Arg Leu Val Phe Ile Leu His Glu

Thr Ser Arg Ser Thr Gln Lys Ala Ile Ala Phe Cys Leu Gly Tyr Gly

Cys Pro Leu Ala Ile Ser Val Ile Thr Leu Gly Ala Thr Gln Pro Arg

Glu Val Tyr Thr Arg Lys Asn Val Cys Trp Leu Asn Trp Glu Asp Thr 60

```
Lys Ala Leu Leu Ala Phe Ala Ile Pro Ala Leu Ile Ile Val Val
Asn Ile Thr Ile Thr Ile Val Val Ile Thr Lys Ile Leu Arg Pro Ser
Ile Gly Asp Lys Pro Cys Lys Gln Glu Lys Ser Ser Leu Phe Gln Ile
                                105
Ser Lys Ser Ile Gly Val Leu Thr Pro Leu Leu Gly Leu Thr Trp Gly
                            120
Phe Gly Leu Thr Thr Val Phe Pro Gly Thr Asn Leu Val Phe His Ile
Ile Phe Ala Ile Leu Asn Val Phe Gln Gly Leu Phe Ile Leu Leu Phe
Gly Cys Leu Trp Asp Leu Lys Val Gln Glu Ala Leu Leu Asn Lys Phe
Ser Leu Ser Arg Trp Ser Ser Gln His Ser Lys Ser Thr Ser Leu Gly
Ser Ser Thr Pro Val Phe Ser Met Ser Ser Pro Ile Ser Arg Phe
                            200
                                                205
Asn Asn Leu Phe Gly Lys Thr Gly Thr Tyr Asn Val Ser Thr Pro Glu
Ala Thr Ser Ser Ser Leu Glu Asn Ser Ser Ser Ala Ser Ser Leu Leu
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<210> 255 <211> 36

Asn

<212> PRT

<213> Homo sapiens

<400> 255

His Trp Gly Leu Met Leu Phe Tyr Arg Leu Val Phe Ile Leu His Glu

Thr Ser Arg Ser Thr Gln Lys Ala Ile Ala Phe Cys Leu Gly Tyr Gly

Cys Pro Leu Ala 35

<210> 256

<211> 35

<212> PRT

<213> Homo sapiens

<400> 256

Ile Ser Val Ile Thr Leu Gly Ala Thr Gln Pro Arg Glu Val Tyr Thr

Arg Lys Asn Val Cys Trp Leu Asn Trp Glu Asp Thr Lys Ala Leu Leu 20 25

```
Ala Phe Ala
<210> 257
<211> 35
<212> PRT
<213> Homo sapiens
<400> 257
Ile Pro Ala Leu Ile Ile Val Val Asn Ile Thr Ile Thr Ile Val
Val Ile Thr Lys Ile Leu Arg Pro Ser Ile Gly Asp Lys Pro Cys Lys
Gln Glu Lys
<210> 258
<211> 36
<212> PRT
<213> Homo sapiens
<400> 258
Ser Ser Leu Phe Gln Ile Ser Lys Ser Ile Gly Val Leu Thr Pro Leu
Leu Gly Leu Thr Trp Gly Phe Gly Leu Thr Thr Val Phe Pro Gly Thr
Asn Leu Val Phe
<210> 259
<211> 36
<212> PRT
<213> Homo sapiens
<400> 259
His Ile Ile Phe Ala Ile Leu Asn Val Phe Gln Gly Leu Phe Ile Leu
Leu Phe Gly Cys Leu Trp Asp Leu Lys Val Gln Glu Ala Leu Leu Asn
Lys Phe Ser Leu
        35
<210> 260
<211> 35
<212> PRT
<213> Homo sapiens
<400> 260
Ser Arg Trp Ser Ser Gln His Ser Lys Ser Thr Ser Leu Gly Ser Ser
Thr Pro Val Phe Ser Met Ser Ser Pro Ile Ser Arg Arg Phe Asn Asn
             20
                                 25
Leu Phe Gly
```

35

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<210> 261
<211> 28
<212> PRT
<213> Homo sapiens
<400> 261
Lys Thr Gly Thr Tyr Asn Val Ser Thr Pro Glu Ala Thr Ser Ser Ser
                                     10
Leu Glu Asn Ser Ser Ser Ala Ser Ser Leu Leu Asn
<210> 262
<211> 237
<212> PRT
<213> Homo sapiens
<400> 262
Met Leu Phe Tyr Arg Leu Val Phe Ile Leu His Glu Thr Ser Arg Ser
Thr Gln Lys Ala Ile Ala Phe Cys Leu Gly Tyr Gly Cys Pro Leu Ala
             20
Ile Ser Val Ile Thr Leu Gly Ala Thr Gln Pro Arg Glu Val Tyr Thr
Arg Lys Asn Val Cys Trp Leu Asn Trp Glu Asp Thr Lys Ala Leu Leu
Ala Phe Ala Ile Pro Ala Leu Ile Ile Val Val Asn Ile Thr Ile
Thr Ile Val Val Ile Thr Lys Ile Leu Arg Pro Ser Ile Gly Asp Lys
Pro Cys Lys Gln Glu Lys Ser Ser Leu Phe Gln Ile Ser Lys Ser Ile
                                105
Gly Val Leu Thr Pro Leu Leu Gly Leu Thr Trp Gly Phe Gly Leu Thr
        115
                            120
Thr Val Phe Pro Gly Thr Asn Leu Val Phe His Ile Ile Phe Ala Ile
                        135
Leu Asn Val Phe Gln Gly Leu Phe Ile Leu Leu Phe Gly Cys Leu Trp
Asp Leu Lys Val Gln Glu Ala Leu Leu Asn Lys Phe Ser Leu Ser Arg
                165
                                    170
Trp Ser Ser Gln His Ser Lys Ser Thr Ser Leu Gly Ser Ser Thr Pro
                                185
Val Phe Ser Met Ser Ser Pro Ile Ser Arg Arg Phe Asn Asn Leu Phe
```

Gly Lys Thr Gly Thr Tyr Asn Val Ser Thr Pro Glu Ala Thr Ser Ser

235

210 215 220 Ser Leu Glu Asn Ser Ser Ser Ala Ser Ser Leu Leu Asn

230

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<210> 263
<211> 150
<212> PRT
<213> Homo sapiens
<400> 263
Met Glu His Lys Val Gly Pro Trp Glu His Ser Gly Glu Thr Lys Thr
Pro Ser Glu Ala Gln Glu Trp Cys Glu Asp Pro Asn Ala Leu Ala Asp
Leu Lys Gln Ala Ala Leu Leu Leu Ala Trp Leu Val Ser Asn Gly
Arg Pro Gln Asp Leu Gly Asp Asp His Asn Ser Asp Gly Tyr Val His
His His Asn Asp Gln Cys Trp Asp Gly Glu Ser Gln Gln Gly Leu Gly
Val Leu Pro Val Glu Pro Thr Asp Ile Leu Pro Arg Ile Asp Phe Pro
Gly Leu Gly Gly Ser Gln Arg Asp Asp Arg Asp Gly Lys Trp Ala Ala
                                105
Ile Ala Lys Thr Glu Gly Asn Gly Phe Leu Ser Gly Pro Ala Cys Phe
Met Gln Asn Glu Asn Gln Ala Ile Glu Gln His Glu Ala Pro Val Ser
Ala Ser Arg Arg Arg Arg
145
<210> 264
<211> 14
<212> PRT
<213> Homo sapiens
<400> 264
Thr Arg Pro Leu Trp Ile Pro Arg Ser Leu Val Leu Val Glu
<210> 265
<211> 43
<212> PRT
<213> Homo sapiens
<400> 265
Glu Lys Val Gly Leu Leu Pro Thr Thr Ile Ala Ile Ile Gln Ile Ile
Ser Lys Asp Ser Val Ser Ala Ile Ser Asp Ser Cys Leu Arg Pro Ser
```

<210> 266 <211> 211

Glu Arg Gly Phe Gly Arg Leu Leu Lys Gln Arg

```
<212> PRT
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<213> Homo sapiens

<400> 266

Arg Gly Glu Ser Glu Glu Thr Gly Ser Ser Glu Gly Ala Pro Ser Leu 1 5 10 15

Leu Pro Ala Thr Arg Ala Pro Glu Gly Thr Arg Glu Leu Glu Ala Pro 20 25 30

Ser Glu Asp Asn Ser Gly Arg Thr Ala Pro Ala Gly Thr Ser Val Gln 35 40 45

Ala Gln Pro Val Leu Pro Thr Asp Ser Ala Ser Arg Gly Gly Val Ala 50 60

Val Val Pro Ala Ser Gly Asp Cys Val Pro Ser Pro Cys His Asn Gly 65 70 75 80

Gly Thr Cys Leu Glu Glu Glu Gly Val Arg Cys Leu Cys Leu Pro 85 90 95

Gly Tyr Gly Gly Asp Leu Cys Asp Val Gly Leu Arg Phe Cys Asn Pro 100 105 110

Gly Trp Asp Ala Phe Gln Gly Ala Cys Tyr Lys His Phe Ser Thr Arg 115 120 125

Arg Ser Trp Glu Glu Ala Glu Thr Gln Cys Arg Met Tyr Gly Ala His 130 135 140

Leu Ala Ser Ile Ser Thr Pro Glu Glu Gln Asp Phe Ile Asn Asn Arg 145 150 155 160

Tyr Arg Glu Tyr Gln Trp Ile Gly Leu Asn Asp Arg Thr Ile Glu Gly
165 170 175

Asp Phe Leu Trp Ser Asp Gly Val Pro Leu Leu Tyr Glu Asn Trp Asn 180 185 190

Pro Gly Gln Pro Asp Ser Tyr Phe Leu Ser Gly Glu Asn Cys Val Val 195 200 205

Thr Arg Ala 210

<210> 267

<211> 42 <212> PRT

<213> Homo sapiens

<400> 267

Arg Gly Glu Ser Glu Glu Thr Gly Ser Ser Glu Gly Ala Pro Ser Leu
1 5 10 15

Leu Pro Ala Thr Arg Ala Pro Glu Gly Thr Arg Glu Leu Glu Ala Pro 20 25 30

Ser Glu Asp Asn Ser Gly Arg Thr Ala Pro 35 40

<210> 268

<211> 40

<212> PRT

```
<213> Homo sapiens
```

<400> 268

Ala Gly Thr Ser Val Gln Ala Gln Pro Val Leu Pro Thr Asp Ser Ala 10

Ser Arg Gly Gly Val Ala Val Val Pro Ala Ser Gly Asp Cys Val Pro 20 25 30

Ser Pro Cys His Asn Gly Gly Thr

<210> 269

<211> 43 <212> PRT

<213> Homo sapiens

<400> 269

Cys Leu Glu Glu Glu Gly Val Arg Cys Leu Cys Leu Pro Gly Tyr

Gly Gly Asp Leu Cys Asp Val Gly Leu Arg Phe Cys Asn Pro Gly Trp

Asp Ala Phe Gln Gly Ala Cys Tyr Lys His Phe

<210> 270

<211> 43

<212> PRT

<213> Homo sapiens

<400> 270

Ser Thr Arg Arg Ser Trp Glu Glu Ala Glu Thr Gln Cys Arg Met Tyr

Gly Ala His Leu Ala Ser Ile Ser Thr Pro Glu Glu Gln Asp Phe Ile 25

Asn Asn Arg Tyr Arg Glu Tyr Gln Trp Ile Gly

<210> 271

<211> 43

<212> PRT

<213> Homo sapiens

<400> 271

Leu Asn Asp Arg Thr Ile Glu Gly Asp Phe Leu Trp Ser Asp Gly Val 10 15

Pro Leu Leu Tyr Glu Asn Trp Asn Pro Gly Gln Pro Asp Ser Tyr Phe

Leu Ser Gly Glu Asn Cys Val Val Thr Arg Ala

<210> 272

<211> 483

<212> PRT

<213> Homo sapiens

<400> 272 Met Ala Val Cys Ala Thr Pro Ser Ser His Pro Ala Ser Ala Val Val Gly Ala Cys Leu Val Ser Arg Leu Ser Ser Ser Pro Thr Arg Leu Ala Ser Pro Ile Ser Thr Ala Ala Ser Thr Ser Thr Ala Ser Glu Thr 40 Arg Pro Ser Leu Ser Ala Ile Pro Glu Ala Ser Asn Pro Ala Ser Asn Pro Ala Ser Asp Gly Leu Glu Ala Ile Val Thr Val Thr Glu Thr Leu Glu Glu Leu Gln Leu Pro Gln Glu Ala Thr Glu Ser Glu Ser Arg Gly Ala Ile Tyr Ser Ile Pro Ile Met Glu Asp Gly Gly Gly Ser Ser Thr Pro Glu Asp Pro Ala Glu Ala Pro Arg Thr Leu Leu Glu Phe Glu Thr Gln Ser Met Val Pro Pro Thr Gly Phe Ser Glu Glu Glu Gly Lys 135 140 Ala Leu Glu Glu Glu Lys Tyr Glu Asp Glu Glu Glu Lys Glu Glu 150 Glu Glu Glu Glu Glu Val Glu Asp Glu Ala Leu Trp Ala Trp Pro Ser Glu Leu Ser Ser Pro Gly Pro Glu Ala Ser Leu Pro Thr Glu Pro 180 185 190 Ala Ala Gln Glu Glu Ser Leu Ser Gln Ala Pro Ala Arg Ala Val Leu 200 Gln Pro Gly Ala Ser Pro Leu Pro Asp Gly Glu Ser Glu Ala Ser Arg Pro Pro Arg Val His Gly Pro Pro Thr Glu Thr Leu Pro Thr Pro Arg 230 235 Glu Arg Asn Leu Ala Ser Pro Ser Pro Ser Thr Leu Val Glu Ala Arg 245 250 Glu Val Gly Glu Ala Thr Gly Gly Pro Glu Leu Ser Gly Val Pro Arg Gly Glu Ser Glu Glu Thr Gly Ser Ser Glu Gly Ala Pro Ser Leu Leu 280 Pro Ala Thr Arg Ala Pro Glu Gly Thr Arg Glu Leu Glu Ala Pro Ser Glu Asp Asn Ser Gly Arg Thr Ala Pro Ala Gly Thr Ser Val Gln Ala 315 Gln Pro Val Leu Pro Thr Asp Ser Ala Ser Arg Gly Gly Val Ala Val Val Pro Ala Ser Gly Asp Cys Val Pro Ser Pro Cys His Asn Gly Gly 345

Thr Cys Leu Glu Glu Glu Glu Gly 360 Val Arg Cys Leu Cys Leu Pro Gly 365 Tyr Gly 370 Asp Leu Cys Asp Val Gly Leu Arg Phe Cys Asn Pro Gly 385 Asp Ala Phe Gln Gly 390 Ala Cys Tyr Lys His 395 Phe Ser Thr Arg Arg 400 Ser Trp Glu Glu Ala Glu Thr Gln Cys Arg Met Tyr Gly Ala His Leu Ala Ser Ile Ser Thr Pro Glu Glu Glu Gln Asp Phe Ile Asn Asn Arg Tyr Asp Glu Tyr 435 Phe Leu Arg Phe Leu Tyr Gly Asn Trp Asn Pro Gly Gln Fro Asp Ser Tyr Phe Leu Ser Gly Glu Asn Cys Val Val Thr 480

<210> 273

Arg Val Ala

<211> 427

<212> PRT

<213> Homo sapiens

<400> 273

Ser Ala Ile Pro Glu Ala Ser Asn Pro Ala Ser Asn Pro Ala Ser Asp
1 10 15

Gly Leu Glu Ala Ile Val Thr Val Thr Glu Thr Leu Glu Glu Leu Gln
20 25 30

Leu Pro Gln Glu Ala Thr Glu Ser Glu Ser Arg Gly Ala Ile Tyr Ser 35 40 45

Ile Pro Ile Met Glu Asp Gly Gly Gly Ser Ser Thr Pro Glu Asp 50 60

Pro Ala Glu Ala Pro Arg Thr Leu Leu Glu Phe Glu Thr Gln Ser Met 65 70 75 80

Val Pro Pro Thr Gly Phe Ser Glu Glu Glu Gly Lys Ala Leu Glu Glu 85 90 95

Glu Glu Lys Tyr Glu Asp Glu Glu Glu Lys Glu Glu Glu Glu Glu Glu 100 105 110

Glu Glu Val Glu Asp Glu Ala Leu Trp Ala Trp Pro Ser Glu Leu Ser 115 120 125

Ser Pro Gly Pro Glu Ala Ser Leu Pro Thr Glu Pro Ala Ala Gln Glu 130 135 140

Ser Pro Leu Pro Asp Gly Glu Ser Glu Ala Ser Arg Pro Pro Arg Val

170

175

165

His Gly Pro Pro Thr Glu Thr Leu Pro Thr Pro Arg Glu Arg Asn Leu 185 Ala Ser Pro Ser Pro Ser Thr Leu Val Glu Ala Arg Glu Val Gly Glu 200 Ala Thr Gly Gly Pro Glu Leu Ser Gly Val Pro Arg Gly Glu Ser Glu 215 220 Glu Thr Gly Ser Ser Glu Gly Ala Pro Ser Leu Leu Pro Ala Thr Arg 235 Ala Pro Glu Gly Thr Arg Glu Leu Glu Ala Pro Ser Glu Asp Asn Ser Gly Arg Thr Ala Pro Ala Gly Thr Ser Val Gln Ala Gln Pro Val Leu Pro Thr Asp Ser Ala Ser Arg Gly Gly Val Ala Val Val Pro Ala Ser Gly Asp Cys Val Pro Ser Pro Cys His Asn Gly Gly Thr Cys Leu Glu Glu Glu Gly Val Arg Cys Leu Cys Leu Pro Gly Tyr Gly Gly Asp Leu Cys Asp Val Gly Leu Arg Phe Cys Asn Pro Gly Trp Asp Ala Phe 330 Gln Gly Ala Cys Tyr Lys His Phe Ser Thr Arg Arg Ser Trp Glu Glu Ala Glu Thr Gln Cys Arg Met Tyr Gly Ala His Leu Ala Ser Ile Ser 360 Thr Pro Glu Glu Gln Asp Phe Ile Asn Asn Arg Tyr Arg Glu Tyr Gln Trp Ile Gly Leu Asn Asp Arg Thr Ile Glu Gly Asp Phe Leu Trp Ser Asp Gly Val Pro Leu Leu Tyr Glu Asn Trp Asn Pro Gly Gln Pro Asp 410 Ser Tyr Phe Leu Ser Gly Glu Asn Cys Val Val 420 <210> 274 <211> 196 <212> PRT <213> Homo sapiens <400> 274 Met Ala Gln Leu Phe Leu Pro Leu Leu Ala Ala Leu Val Leu Ala Gln 10 Ala Pro Ala Ala Leu Ala Asp Val Leu Glu Gly Asp Ser Ser Glu Asp

Arg Ala Phe Arg Val Arg Ile Ala Gly Asp Ala Pro Leu Gln Gly Val

Leu Gly Gly Ala Leu Thr Ile Pro Cys His Val His Tyr Leu Arg Pro Fro Pro Pro Ser Arg Arg Ala Val Leu Gly Ser Pro Arg Val Lys Trp Thr 80 Pro Ser Arg Gly Arg Glu Ala Glu Val Leu Val Ala Arg Gly Val 85 Pro Arg Val Lys Val Asn Glu Ala Tyr Arg Pro Pro Ala Ser Leu Thr Asp Val Ser Leu Ala Leu Ser Glu Leu Arg 115 Pro Asn Asp Ser Gly Ile Tyr Arg Cys Glu Val Gln His Gly Ile Asp 130 Pro His Glu Arg Pro Val Thr Glu Thr Trp Met Ala Ser Pro Gly Ser Cly Thr Met Val Trp Trp Thr Arg Met Thr Ser Met Met Cys Thr Val 180 Pro Val Trp Trp Thr Arg Met Thr Ser Met Met Cys Thr Val

Met Leu Lys Thr 195

<210> 275

<211> 247

<212> PRT

<213> Homo sapiens

<400> 275

Met Val Gly His Ala Trp Arg Arg Arg Lys Gly Ser Ala Ala Tyr Val 1 5 10 15

Cys Leu Ala Met Gly Gly Thr Cys Ala Met Leu Ala Ser Ala Ser Ala 20 25 30

Thr Pro Ala Gly Thr Pro Ser Arg Ala Pro Ala Thr Ser Thr Phe Pro 35 40 45

His Glu Gly Ala Gly Arg Arg Gln Arg Pro Ser Ala Gly Cys Thr Ala 50 55 60

Arg Ile Trp Pro Ala Ser Ala His Pro Arg Asn Arg Thr Ser Ser Thr 65 70 75 80

Thr Gly Thr Gly Ser Thr Ser Gly Ser Asp Ser Thr Thr Gly Pro Ser 85 90 95

Lys Ala Thr Ser Cys Gly Arg Met Ala Ser Pro Cys Ser Met Arg Thr $100 \hspace{1cm} 105 \hspace{1cm} 110$

Gly Thr Leu Gly Ser Leu Thr Ala Thr Ser Cys Leu Glu Arg Thr Ala 115 120 125

Trp Ser Leu Val Trp His Asp Gln Gly Gln Trp Ser Asp Val Pro Cys 130 135

Asn Tyr His Leu Ser Tyr Thr Cys Lys Met Gly Leu Val Ser Cys Gly 145 150 155 160

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Pro Pro Pro Glu Leu Pro Leu Ala Gln Val Phe Gly Arg Pro Arg Leu 165 170 175
```

Arg Tyr Glu Val Asp Thr Val Leu Arg Tyr Arg Cys Arg Glu Gly Leu 180 185 190

Ala Gln Arg Asn Leu Pro Leu Ile Arg Cys Gln Glu Asn Gly Arg Trp 195 200 205

Gly Gly Pro Pro Asp Phe Leu Cys Cys Pro Glu Asp Leu Pro Glu Phe 210 215 220

Leu Gln Pro Arg Gly Arg Asp Pro Glu Gly Thr Ser Arg Glu Val Tyr 225 230 235 240

Leu Gly Thr Phe Gly Arg Arg 245

<210> 276

<211> 128

<212> PRT

<213> Homo sapiens

<400> 276

Ser Tyr Lys Asp Ser Leu Val Pro Arg Gln Glu Gly Gly Leu Phe Trp 1 5 10 15

Glu Arg Lys Gly Leu Phe Ser Cys Phe Leu Ser Cys Lys Val Ser Ser 20 25 30

Ser Gln Ser Gln Phe Ser Leu Cys Pro Gly Met Lys Lys Asp Ser Leu 35 40

Glu Val Arg Ser Lys Met Val Cys Leu Gly Gln Ile Ser Phe Thr Val 50 60

Leu Ala Val Ile Leu Gln Trp Gln Phe Gln Asn Phe Gly Gln Arg Pro 65 70 75 80

Ser Ile Phe Leu Arg Pro His Phe Leu Phe Met Cys Val Val Ile Leu 85 90 95

Leu Gln Asn Phe Leu Leu Ser Ser Ala Lys Thr Gly Leu Leu Ser His 100 105 110

Glu Trp Glu Arg Leu Gly Leu Gln Ala Arg Thr Arg Val Arg Lys Thr 115 120 125

Met Lys Lys Asp Ser Leu Glu Val Arg Ser Lys Met Val Cys Leu Gly
1 10 15

Gln Ile Ser Phe Thr Val Leu Ala Val Ile Leu Gln Trp Gln Phe Gln 20 25 30

<210> 277

<211> 86

<212> PRT

<213> Homo sapiens

<400> 277

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Asn Phe Gly Gln Arg Pro Ser Ile Phe Leu Arg Pro His Phe Leu Phe 35 40 45
```

Met Cys Val Val Ile Leu Leu Gln Asn Phe Leu Leu Ser Ser Ala Lys 50 55 60

Thr Gly Leu Leu Ser His Glu Trp Glu Arg Leu Gly Leu Gln Ala Arg 65 70 75 80

Thr Arg Val Arg Lys Thr

<210> 278

<211> 81

<212> PRT

<213> Homo sapiens

<400> 278

Gly Thr Arg Ser Ser His Val Pro Ile Ser Asp Ser Lys Ser Ile Gln
1 5 10 15

Lys Ser Glu Leu Leu Gly Leu Leu Lys Thr Tyr Asn Cys Tyr His Glu 20 25 30

Gly Lys Ser Phe Gln Leu Arg His Arg Glu Glu Glu Gly Thr Leu Ile 35 40 45

Ile Glu Gly Leu Leu Asn Ile Ala Trp Gly Leu Arg Arg Pro Ile Arg 50 55 60

Leu Gln Met Gln Asp Asp Arg Glu Gln Val His Leu Pro Ser Thr Ser 65 70 75 80

Trp

<210> 279

<211> 25

<212> PRT

<213> Homo sapiens

<400> 279

Val Pro Ile Ser Asp Ser Lys Ser Ile Gln Lys Ser Glu Leu Leu Gly
1 10 15

Leu Leu Lys Thr Tyr Asn Cys Tyr His 20 25

<210> 280

<211> 28

<212> PRT

<213> Homo sapiens

<400> 280

Phe Gln Leu Arg His Arg Glu Glu Glu Gly Thr Leu Ile Ile Glu Gly 1 5 10 15

Leu Leu Asn Ile Ala Trp Gly Leu Arg Arg Pro Ile 20 25

<210> 281

<211> 344

<212> PRT <213> Homo sapiens

<400> 281 Gly Thr Arg Ser Ser His Val Pro Ile Ser Asp Ser Lys Ser Ile Gln Lys Ser Glu Leu Leu Gly Leu Leu Lys Thr Tyr Asn Cys Tyr His Glu Gly Lys Ser Phe Gln Leu Arg His Arg Glu Glu Glu Gly Thr Leu Ile Ile Glu Gly Leu Leu Asn Ile Ala Trp Gly Leu Arg Arg Pro Ile Arg Leu Gln Met Gln Asp Asp Arg Glu Gln Val His Leu Pro Ser Thr Ser Trp Met Pro Arg Arg Pro Ser Cys Pro Leu Gly Cys Trp Ser Leu Leu Leu Gly Leu Ser Ser Leu Ser Leu Pro Ala Ala Ile Ser Ala Leu Gln Leu Ser Val Phe Arg Lys Glu Pro Ser Pro Gln Asn Gly Asn Ile Thr 120 Ala Gln Gly Pro Ser Ile Gln Pro Val His Lys Ala Glu Ser Ser Thr Asp Ser Ser Gly Pro Leu Glu Glu Ala Glu Ala Pro Gln Leu Met Arg Thr Lys Ser Asp Ala Ser Cys Met Ser Gln Arg Arg Pro Lys Cys 170 Arg Ala Pro Gly Glu Ala Gln Arg Ile Arg Arg His Arg Phe Ser Ile Asn Gly His Phe Tyr Asn His Lys Thr Ser Val Phe Thr Pro Ala Tyr Gly Ser Val Thr Asn Val Arg Val Asn Ser Thr Met Thr Thr Leu Gln 215 220 Val Leu Thr Leu Leu Leu Asn Lys Phe Arg Val Glu Asp Gly Pro Ser Glu Phe Ala Leu Tyr Ile Val His Glu Ser Gly Glu Arg Thr Lys Leu Lys Asp Cys Glu Tyr Pro Leu Ile Ser Arg Ile Leu His Gly Pro Cys 265 Glu Lys Ile Ala Arg Ile Phe Leu Met Glu Ala Asp Leu Gly Val Glu Val Pro His Glu Val Ala Gln Tyr Ile Lys Phe Glu Met Pro Val Leu Asp Ser Phe Val Glu Lys Leu Lys Glu Glu Glu Glu Arg Glu Ile Ile 310 315 Lys Leu Thr Met Lys Phe Gln Ala Leu Arg Leu Thr Met Leu Gln Arg 330

Leu Glu Gln Leu Val Glu Ala Lys 340

<210> 282

<211> 27 <212> PRT

<213> Homo sapiens

<400> 282

Gly Cys Trp Ser Leu Leu Gly Leu Ser Ser Leu Ser Leu Pro Ala

Ala Ile Ser Ala Leu Gln Leu Ser Val Phe Arg

<210> 283

<211> 243

<212> PRT

<213> Homo sapiens

<400> 283

Thr Arg Thr Thr Ser Cys Arg Thr Pro Ser Thr Thr Ser His Leu Pro 10

Thr Ser Ser Thr Arg Ser Ser Pro Pro Trp Ser Leu Gly Pro Pro Gly

Val Val Ala Pro Thr Ala Ser Pro Ala Pro Thr Ala Ser Val Ala Pro

Ala Thr Thr Arg Arg Leu Ser Cys Ser Ala Leu Met Met Asn Ser Arg

Cys Gly Leu Gln Trp Arg Lys Cys Trp Arg His Ser His Gly Gln Ala

Val Pro His Leu Gln Pro His His Gln Ala Arg Arg Gln Leu Ala Gln

Cys Ser Arg Arg Leu Tyr Leu Leu Asp Gln Lys His Ser His Val Ala 105

Ser Arg Gly Thr Gly Asp Ser Gln Ala Arg Pro Trp Ala Phe Arg Asn 120

Ile Tyr Thr Trp Pro Ser Leu His Cys Pro Gly Glu Gly Arg Gly His

Trp Glu Gln Gly Leu Cys Pro Cys Cys Pro Ser Cys Ala Gly Gly Met 150

Leu Gly Pro Ala Ala Pro Arg Pro Gln Cys Leu Cys Val Asp Gln Arg

Leu Gln Pro Ser Ser Pro Ser Ser Pro Arg Asp Ser Gln Ala Glu Val 185

Gly Lys Pro Trp Leu Pro His Thr Pro Cys Asn Thr Leu Ser Asp Leu

Gly Ser Ser Arg Leu His Pro Phe Pro Val His Leu Cys Pro Val Leu 210 215 220

Asp Ser Pro His Pro Gly Gln Glu Trp Gly Cys Gly Arg Ser Val Val 225 230 235 240

Leu Pro Ser

<210> 284

<211> 162

<212> PRT

<213> Homo sapiens

<400> 284

Ile Leu Gly Ala Gly Cys Ser Gly Gly Ser Ala Gly Ala Ile Ala Thr $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$

Val Arg Leu Cys Pro Thr Ser Ser Leu Thr Thr Arg Pro Gly Gly Ser 20 25 30

Trp His Ser Ala His Ala Ala Phe Ile Tyr Trp Thr Arg Asn Thr His 35 40 45

Met Ser Leu Pro Glu Glu Arg Gly Thr Ala Arg Leu Ala His Gly Pro $50 \hspace{1cm} 55 \hspace{1cm} 60$

Ser Gly Ile Phe Ile His Gly Pro Ala Cys Thr Ala Arg Ala Arg Ala 65 70 75 80

Glu Asp Thr Gly Ser Lys Ala Tyr Ala Pro Ala Ala Arg Pro Val Leu 85 90 95

Gly Ala Cys Trp Asp Gln Pro His Pro Gly Pro Asn Ala Cys Val Trp 100 105 110

Thr Ser Gly Cys Ser Leu Leu Ala Pro Pro Pro Arg Glu Thr Leu Arg 115 120 125

Leu Arg Ser Ala Ser Arg Gly Ser Pro Thr His Arg Ala Ile Pro Cys 130 140

Leu Thr Trp Ala Leu Pro Ala Cys Ile Pro Ser Leu Ser Thr Phe Val 145 150 155

Gln Cys

<210> 285

<211> 35

<212> PRT

<213> Homo sapiens

<400> 285

Thr Arg Thr Thr Ser Cys Arg Thr Pro Ser Thr Thr Ser His Leu Pro $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$

Thr Ser Ser Thr Arg Ser Ser Pro Pro Trp Ser Leu Gly Pro Pro Gly 20 25 30

Val Val Ala

<210> 286

<211> 36

<212> PRT

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<213> Homo sapiens
<400> 286
Pro Thr Ala Ser Pro Ala Pro Thr Ala Ser Val Ala Pro Ala Thr Thr
Arg Arg Leu Ser Cys Ser Ala Leu Met Met Asn Ser Arg Cys Gly Leu
             20
Gln Trp Arg Lys
<210> 287
<211> 36
<212> PRT
<213> Homo sapiens
<400> 287
Cys Trp Arg His Ser His Gly Gln Ala Val Pro His Leu Gln Pro His
His Gln Ala Arg Arg Gln Leu Ala Gln Cys Ser Arg Arg Leu Tyr Leu
Leu Asp Gln Lys
         35
<210> 288
<211> 35
<212> PRT
<213> Homo sapiens
<400> 288
His Ser His Val Ala Ser Arg Gly Thr Gly Asp Ser Gln Ala Arg Pro
Trp Ala Phe Arg Asn Ile Tyr Thr Trp Pro Ser Leu His Cys Pro Gly
Glu Gly Arg
<210> 289
<211> 36
<212> PRT
<213> Homo sapiens
<400> 289
Gly His Trp Glu Gln Gly Leu Cys Pro Cys Cys Pro Ser Cys Ala Gly
                                      10
Gly Met Leu Gly Pro Ala Ala Pro Arg Pro Gln Cys Leu Cys Val Asp
Gln Arg Leu Gln
         35
<210> 290
<211> 35
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<212> PRT

<213> Homo sapiens

```
<400> 290
Pro Ser Ser Pro Ser Pro Arg Asp Ser Gln Ala Glu Val Gly Lys
                                     10
Pro Trp Leu Pro His Thr Pro Cys Asn Thr Leu Ser Asp Leu Gly Ser
                                 25
Ser Arg Leu
<210> 291
<211> 30
<212> PRT
<213> Homo sapiens
<400> 291
His Pro Phe Pro Val His Leu Cys Pro Val Leu Asp Ser Pro His Pro
Gly Gln Glu Trp Gly Cys Gly Arg Ser Val Val Leu Pro Ser
                                 25
<210> 292
<211> 38
<212> PRT
<213> Homo sapiens
<400> 292
Ile Leu Gly Ala Gly Cys Ser Gly Gly Ser Ala Gly Ala Ile Ala Thr
Val Arg Leu Cys Pro Thr Ser Ser Leu Thr Thr Arg Pro Gly Gly Ser
Trp His Ser Ala His Ala
         35
<210> 293
<211> 36
<212> PRT
<213> Homo sapiens
<400> 293
Ala Phe Ile Tyr Trp Thr Arg Asn Thr His Met Ser Leu Pro Glu Glu
Arg Gly Thr Ala Arg Leu Ala His Gly Pro Ser Gly Ile Phe Ile His
Gly Pro Ala Cys
         35
<210> 294
<211> 34
<212> PRT
<213> Homo sapiens
<400> 294
Thr Ala Arg Ala Arg Ala Glu Asp Thr Gly Ser Lys Ala Tyr Ala Pro
                                     10
```

Ala Ala Arg Pro Val Leu Gly Ala Cys Trp Asp Gln Pro His Pro Gly

20 25 30

Pro Asn

<210> 295

<211> 54

<212> PRT

<213> Homo sapiens

<400> 295

Ala Cys Val Trp Thr Ser Gly Cys Ser Leu Leu Ala Pro Pro Pro Arg $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$

Glu Thr Leu Arg Leu Arg Ser Ala Ser Arg Gly Ser Pro Thr His Arg 20 25 30

Ala Ile Pro Cys Leu Thr Trp Ala Leu Pro Ala Cys Ile Pro Ser Leu 35 40 45

Ser Thr Phe Val Gln Cys 50

<210> 296

<211> 184

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (157)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 296

Met Met Asn Ser Arg Cys Gly Leu Gln Trp Arg Lys Cys Trp Arg His 1 5 10 15

Ser His Gly Gln Ala Val Pro His Leu Gln Pro His His Gln Ala Arg 20 25 30

Arg Gln Leu Ala Gln Cys Ser Arg Arg Leu Tyr Leu Leu Asp Gln Lys 35 40 45

His Ser His Val Ala Ser Arg Gly Thr Gly Asp Ser Gln Ala Arg Pro 50 60

Trp Ala Phe Arg Asn Ile Tyr Thr Trp Pro Ser Leu His Cys Pro Gly 65 70 75 80

Glu Gly Arg Gly His Trp Glu Gln Gly Leu Cys Pro Cys Cys Pro Ser 85 90 95

Cys Ala Gly Gly Met Leu Gly Pro Ala Ala Pro Arg Pro Gln Cys Leu 100 105 110

Cys Val Asp Gln Arg Leu Gln Pro Ser Ser Pro Ser Ser Pro Arg Asp 115 120 125

Ser Gln Ala Glu Val Gly Lys Pro Trp Leu Pro His Thr Pro Cys Asn 130 135 140

Thr Leu Ser Asp Leu Gly Ser Ser Arg Leu His Pro Xaa Pro Val His 145 150 155 160 Leu Cys Pro Val Leu Asp Ser Pro His Pro Gly Gln Glu Trp Gly Cys 165 170 175

Gly Arg Ser Val Val Leu Pro Ser 180

<210> 297

<211> 278

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (183)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (186)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 297

Ile Arg Gln Ser Leu Gly Gly Glu Ser Ser Ile Met Ser Glu Ile Arg
1 5 10 15

Gly Lys Pro Ile Glu Ser Ser Cys Met Tyr Gly Thr Cys Cys Leu Trp 20 25 30

Gly Lys Thr Tyr Ser Ile Gly Phe Leu Arg Phe Cys Lys Gln Ala Thr 35 40 45

Leu Gln Phe Cys Val Val Lys Pro Leu Met Ala Val Ser Thr Val Val 50 60

Leu Gln Ala Phe Gly Lys Tyr Arg Asp Gly Asp Phe Asp Val Thr Ser 65 70 75 80

Gly Tyr Leu Tyr Val Thr Ile Ile Tyr Asn Ile Ser Val Ser Leu Ala 85 90 95

Leu Tyr Ala Leu Phe Leu Phe Tyr Phe Ala Thr Arg Glu Leu Leu Ser 100 105 110

Pro Tyr Ser Pro Val Leu Lys Phe Phe Met Val Lys Ser Val Ile Phe 115 120 125

Leu Ser Phe Trp Gln Gly Met Leu Leu Ala Ile Leu Glu Lys Cys Gly 130 135 140

Ala Ile Pro Lys Ile His Ser Ala Arg Val Ser Val Gly Glu Gly Thr 145 150 155 160

Val Ala Ala Gly Tyr Gln Asp Phe Ile Ile Cys Val Glu Met Phe
165 170 175

Ala Ala Leu Ala Leu Arg Xaa Ala Phe Xaa Tyr Lys Val Tyr Ala Asp 180 185 190

Lys Arg Leu Asp Ala Gln Gly Arg Cys Ala Pro Met Lys Ser Ile Ser 195 200 205

Ser Ser Leu Lys Glu Thr Met Asn Pro His Asp Ile Val Gln Asp Ala 210 215 220

Ile His Asn Phe Ser Pro Ala Tyr Gln Gln Tyr Thr Gln Gln Ser Thr

225 230 240 235 Leu Glu Pro Gly Pro Thr Trp Arg Gly Gly Ala His Gly Leu Ser Arg Ser His Ser Leu Ser Gly Ala Arg Asp Asn Glu Lys Thr Leu Leu Leu Ser Ser Asp Asp Glu Phe 275 <210> 298 <211> 46 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (42) <223> Xaa equals any of the naturally occurring L-amino acids <400> 298 Pro His Arg Pro Pro Thr Pro Gln Ser Asn Phe Ser Ser His Pro Ser Ser Gln Ala Leu Thr Ile Leu Lys Arg Leu Val Gly Thr Leu Leu Ser Ala Thr Gly Lys Leu Val Arg Ala Arg Xaa Arg Ala Trp Gly <210> 299 <211> 102 <212> PRT <213> Homo sapiens <400> 299 Gly Val Met Arg Leu Arg Thr Arg Gln Lys Ser Arg Arg Gln Arg Lys Glu Lys Met Ser Arg Arg Lys Ser Lys Arg Lys Met Lys Arg Lys Arg Arg Arg Gln Arg Ala Arg Gly Gln Ser Gln Pro Met Arg Leu Ser Phe His Pro Phe Pro Thr Leu Val Phe Phe Gln Val Leu Thr Gln Ser Trp Val Leu Ser Ser Arg Arg Gln Leu Leu Val Val Arg Ala Gly Pro His Pro Pro Trp Pro Leu Phe Asp Leu Pro His Ser Val Thr Pro Gln 90 Ala Ser His Thr Ser Val 100

<210> 300 <211> 43 <212> PRT

<213> Homo sapiens

```
<400> 300
Met Lys Arg Lys Arg Arg Arg Gln Arg Ala Arg Gly Gln Ser Gln
Pro Met Arg Leu Ser Phe His Pro Phe Pro Thr Leu Val Phe Phe Gln
             20
Val Leu Thr Gln Ser Trp Val Leu Ser Ser Arg
<210> 301
<211> 32
<212> PRT
<213> Homo sapiens
<400> 301
Arg Gln Leu Leu Val Val Arg Ala Gly Pro His Pro Pro Trp Pro Leu
Phe Asp Leu Pro His Ser Val Thr Pro Gln Ala Ser His Thr Ser Val
                                 25
<210> 302
<211> 52
<212> PRT
<213> Homo sapiens
<400> 302
His His Cys Pro Ala Leu Gln Pro Gly Thr His Thr His Thr His Thr
His Thr His Thr His Thr Arg Arg Gly Met Cys Leu Val Gln Ile Tyr
Ile Lys Leu Thr His Arg Gln Ile Pro Cys Leu Cys Leu Gly Pro
Asp Ser Ala Val
    50
<210> 303
<211> 8
<212> PRT
<213> Homo sapiens
<400> 303
His Glu Ile Leu Gln Pro Ala Val
<210> 304
<211> 54
<212> PRT
<213> Homo sapiens
<400> 304
Asn Ser Arg Val Asp Pro Arg Val Arg Asp Gly Leu Met Tyr Gln Lys
                                     10
                                                         15
```

Phe Arg Asn Gln Phe Leu Ser Phe Ser Met Tyr Gln Ser Phe Val Gln

20 30 25 Phe Leu Gln Tyr Tyr Gln Ser Gly Cys Leu Tyr Arg Leu Arg Ala 40

Leu Gly Glu Arg His Thr 50

<210> 305

<211> 116

<212> PRT

<213> Homo sapiens

<400> 305

Met Tyr Gln Ser Phe Val Gln Phe Leu Gln Tyr Tyr Tyr Gln Ser Gly

Cys Leu Tyr Arg Leu Arg Ala Leu Gly Glu Arg His Thr Met Asp Leu

Thr Val Glu Gly Phe Gln Ser Trp Met Trp Arg Gly Leu Thr Phe Leu

Leu Pro Phe Leu Phe Phe Gly His Phe Trp Gln Leu Phe Asn Ala Leu 50

Thr Leu Phe Asn Leu Ala Gln Asp Pro Gln Cys Lys Glu Trp Gln Val 65 70 75 80

Leu Met Cys Gly Phe Pro Phe Leu Leu Phe Leu Gly Asn Phe Phe

Thr Thr Leu Arg Val Val His His Lys Phe His Ser Gln Arg His Gly 100 105

Ser Lys Lys Asp 115

<210> 306

<211> 9

<212> PRT

<213> Homo sapiens

<400> 306

Ile Leu Met Pro Phe Cys Gly Leu His

<210> 307

<211> 72 <212> PRT

<213> Homo sapiens

<400> 307

Met Pro Phe Cys Gly Leu His Met Ala Ser Pro Ser Ile Ile Leu Leu 1 10 15

Leu Ile Phe Phe Phe Phe Phe Phe Ser Val Cys Ser Val Ser Gln

Tyr Met Phe Glu Asn Glu Cys Glu Ser Met Ser Arg Arg Gly Arg

Gly Leu Gly Arg Ser Arg Leu Lys Val Glu Gln Gly Pro Asp Ala Asp

60

55

50

210

Leu His Pro Arg Thr Leu Gly Ser <210> 308 <211> 17 <212> PRT <213> Homo sapiens <400> 308 Leu Pro Leu Val Leu Pro Pro Thr Pro Pro Pro Trp Leu Pro Ser Leu <210> 309 <211> 220 <212> PRT <213> Homo sapiens Thr Thr Met Tyr Ala Leu Trp Arg Thr Gly Pro Thr Thr Ser Pro Ala Leu Leu Thr Leu Leu Ser Lys Gly Val Pro Arg Pro Ala Ala Pro Trp Thr Met Ser Pro Ser Ser Val Ala Leu Ile Cys Leu Leu Arg Tyr Gly Gln Leu Leu Glu Gln Ser Arg His Ser Trp Val Asn Thr Thr Ala Leu Ile Thr Gly Cys Thr Asn Ala Ala Gly Leu Leu Val Val Gly Asn Phe Gln Val Asp His Ala Arg Ser Leu His Tyr Val Gly Ala Gly Val Ala Phe Pro Ala Gly Leu Leu Phe Val Cys Leu His Cys Ala Leu Ser Tyr Gln Gly Ala Thr Ala Pro Leu Asp Leu Ala Val Ala Tyr Leu Arg Ser Val Leu Ala Val Ile Ala Phe Ile Thr Leu Val Leu Ser Gly Val Phe Phe Val His Glu Ser Ser Gln Leu Gln His Gly Ala Ala Leu Cys Glu 150 155 Trp Val Cys Val Ile Asp Ile Leu Ile Phe Tyr Gly Thr Phe Ser Tyr 170 Glu Phe Gly Ala Val Ser Ser Asp Thr Leu Val Ala Ala Leu Gln Pro Thr Pro Gly Arg Ala Cys Lys Ser Ser Gly Ser Ser Ser Thr Ser Thr 200 205 His Leu Asn Cys Ala Pro Glu Ser Ile Ala Met Ile

215

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<210> 310
<211> 37
<212> PRT
<213> Homo sapiens
<400> 310
Thr Thr Met Tyr Ala Leu Trp Arg Thr Gly Pro Thr Thr Ser Pro Ala
Leu Leu Thr Leu Leu Ser Lys Gly Val Pro Arg Pro Ala Ala Pro Trp
Thr Met Ser Pro Ser
         35
<210> 311
<211> 34
<212> PRT
<213> Homo sapiens
<400> 311
Ser Val Ala Leu Ile Cys Leu Leu Arg Tyr Gly Gln Leu Leu Glu Gln
                                      10
Ser Arg His Ser Trp Val Asn Thr Thr Ala Leu Ile Thr Gly Cys Thr
Asn Ala
<210> 312
<211> 37
<212> PRT
<213> Homo sapiens
<400> 312
Ala Gly Leu Leu Val Val Gly Asn Phe Gln Val Asp His Ala Arg Ser
Leu His Tyr Val Gly Ala Gly Val Ala Phe Pro Ala Gly Leu Leu Phe
                                  25
Val Cys Leu His Cys
         35
<210> 313
<211> 34
<212> PRT
<213> Homo sapiens
<400> 313
Ala Leu Ser Tyr Gln Gly Ala Thr Ala Pro Leu Asp Leu Ala Val Ala
Tyr Leu Arg Ser Val Leu Ala Val Ile Ala Phe Ile Thr Leu Val Leu
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Ser Gly

```
<210> 314
<211> 41
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<212> PRT

<213> Homo sapiens

<400> 314

Val Phe Phe Val His Glu Ser Ser Gln Leu Gln His Gly Ala Ala Leu 10

Cys Glu Trp Val Cys Val Ile Asp Ile Leu Ile Phe Tyr Gly Thr Phe

Ser Tyr Glu Phe Gly Ala Val Ser Ser

<210> 315

<211> 37

<212> PRT

<213> Homo sapiens

<400> 315

Asp Thr Leu Val Ala Ala Leu Gln Pro Thr Pro Gly Arg Ala Cys Lys

Ser Ser Gly Ser Ser Ser Thr Ser Thr His Leu Asn Cys Ala Pro Glu 25

Ser Ile Ala Met Ile 35

<210> 316

<211> 177 <212> PRT

<213> Homo sapiens

<400> 316

Ser Ala Ser Cys Ala Thr Gly Ser Ser Trp Ser Arg Val Gly Thr Leu

Gly Leu Thr Pro Arg His Ser Ser Gln Ala Ala Pro Thr Leu Arg Ala

Ser Trp Trp Leu Ala Thr Phe Arg Trp Ile Met Pro Gly Leu Cys Thr

Thr Leu Glu Leu Ala Trp Pro Ser Leu Arg Gly Cys Ser Leu Phe Ala

Cys Thr Val Leu Ser Pro Thr Lys Gly Pro Pro Pro Arg Trp Thr Trp

Leu Trp Pro Ile Cys Glu Val Cys Trp Leu Ser Ser Pro Leu Ser Pro

Trp Ser Ser Val Glu Ser Ser Leu Ser Met Arg Val Leu Ser Cys Asn

Met Gly Gln Pro Cys Val Ser Gly Cys Val Ser Ser Ile Ser Ser Phe

Ser Met Ala Pro Ser Ala Thr Ser Leu Gly Gln Ser Pro Gln Thr His 130 135

Trp Trp Leu His Cys Ser Leu Pro Leu Ala Gly Pro Ala Ser Pro Pro

```
150
                                          155
                                                               160
145
Gly Ala Ala Pro Pro Pro Thr Ser Thr Val Pro Pro Arg Ala Ser
                165
                                      170
Leu
<210> 317
<211> 38
<212> PRT
<213> Homo sapiens
<400> 317
Ser Ala Ser Cys Ala Thr Gly Ser Ser Trp Ser Arg Val Gly Thr Leu
                                      10
Gly Leu Thr Pro Arg His Ser Ser Gln Ala Ala Pro Thr Leu Arg Ala
Ser Trp Trp Leu Ala Thr
        35
<210> 318
<211> 33
<212> PRT
<213> Homo sapiens
<400> 318
Phe Arg Trp Ile Met Pro Gly Leu Cys Thr Thr Leu Glu Leu Ala Trp
Pro Ser Leu Arg Gly Cys Ser Leu Phe Ala Cys Thr Val Leu Ser Pro
                                  25
Thr
<210> 319
<211> 36
<212> PRT
<213> Homo sapiens
<400> 319
Lys Gly Pro Pro Pro Arg Trp Thr Trp Leu Trp Pro Ile Cys Glu Val 1 1 1 1 1
Cys Trp Leu Ser Ser Pro Leu Ser Pro Trp Ser Ser Val Glu Ser Ser
Leu Ser Met Arg
         35
<210> 320
<211> 35
<212> PRT
<213> Homo sapiens
<400> 320
Val Leu Ser Cys Asn Met Gly Gln Pro Cys Val Ser Gly Cys Val Ser
                                       10
```

Ser Ile Ser Ser Phe Ser Met Ala Pro Ser Ala Thr Ser Leu Gly Gln 25

Ser Pro Gln

<210> 321

<211> 35

<212> PRT

<213> Homo sapiens

<400> 321

Thr His Trp Trp Leu His Cys Ser Leu Pro Leu Ala Gly Pro Ala Ser

Pro Pro Gly Ala Ala Pro Pro Pro Thr Ser Thr Val Pro Pro Arg 25

Ala Ser Leu

<210> 322

<211> 218 <212> PRT

<213> Homo sapiens

<400> 322

Met Tyr Ala Leu Trp Arg Thr Gly Pro Thr Thr Ser Pro Ala Leu Leu 1 10 15

Thr Leu Leu Ser Lys Gly Val Pro Arg Pro Ala Ala Pro Trp Thr Met

Ser Pro Ser Ser Val Ala Leu Ile Cys Leu Leu Arg Tyr Gly Gln Leu

Leu Glu Gln Ser Arg His Ser Trp Val Asn Thr Thr Ala Leu Ile Thr

Gly Cys Thr Asn Ala Ala Gly Leu Leu Val Val Gly Asn Phe Gln Val

Asp His Ala Arg Ser Leu His Tyr Val Gly Ala Gly Val Ala Phe Pro

Ala Gly Leu Leu Phe Val Cys Leu His Cys Ala Leu Ser Tyr Gln Gly 105

Ala Thr Ala Pro Leu Asp Leu Ala Val Ala Tyr Leu Arg Ser Val Leu

Ala Val Ile Ala Phe Ile Thr Leu Val Leu Ser Gly Val Phe Phe Val

His Glu Ser Ser Gln Leu Gln His Gly Ala Ala Leu Cys Glu Trp Val 150

Cys Val Ile Asp Ile Leu Ile Phe Tyr Gly Thr Phe Ser Tyr Glu Phe

Gly Ala Val Ser Ser Asp Thr Leu Val Ala Ala Leu Gln Pro Thr Pro 185

Gly Arg Ala Cys Lys Ser Ser Gly Ser Ser Ser Thr Ser Thr His Leu

200 205 195

Asn Cys Ala Pro Glu Ser Ile Ala Met Ile 215

<210> 323 <211> 187

<212> PRT

<213> Homo sapiens

<400> 323

Met Ser Pro Ser Ser Val Ala Leu Ile Cys Leu Leu Arg Tyr Gly Gln

Leu Leu Glu Gln Ser Arg His Ser Trp Val Asn Thr Thr Ala Leu Ile 20

Thr Gly Cys Thr Asn Ala Ala Gly Leu Leu Val Val Gly Asn Phe Gln

Val Asp His Ala Arg Ser Leu His Tyr Val Gly Ala Gly Val Ala Phe

Pro Ala Gly Leu Leu Phe Val Cys Leu His Cys Ala Leu Ser Tyr Gln 70

Gly Ala Thr Ala Pro Leu Asp Leu Ala Val Ala Tyr Leu Arg Ser Val

Leu Ala Val Ile Ala Phe Ile Thr Leu Val Leu Ser Gly Val Phe Phe 105

Val His Glu Ser Ser Gln Leu Gln His Gly Ala Ala Leu Cys Glu Trp 115 120

Val Cys Val Ile Asp Ile Leu Ile Phe Tyr Gly Thr Phe Ser Tyr Glu 135 140

Phe Gly Ala Val Ser Ser Asp Thr Leu Val Ala Ala Leu Gln Pro Thr

Pro Gly Arg Ala Cys Lys Ser Ser Gly Ser Ser Ser Thr Ser Thr His 170

Leu Asn Cys Ala Pro Glu Ser Ile Ala Met Ile 180

<210> 324

<211> 67

<212> PRT

<213> Homo sapiens

<400> 324

Met Thr Ala Trp Ile Leu Leu Pro Val Ser Leu Ser Ala Phe Ser Ile

Thr Gly Ile Trp Thr Val Tyr Ala Met Ala Val Met Asn His His Val

Cys Pro Val Glu Asn Trp Ser Tyr Asn Glu Ser Cys Pro Pro Asp Pro

Ala Glu Gln Gly Gly Pro Lys Thr Cys Cys Thr Leu Asp Asp Val Pro

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Leu Ile Ser
 65
<210> 325
<211> 135
<212> PRT
<213> Homo sapiens
<400> 325
Met Pro Gly Leu Cys Thr Thr Leu Glu Leu Ala Trp Pro Ser Leu Arg
Gly Cys Ser Leu Phe Ala Cys Thr Val Leu Ser Pro Thr Lys Gly Pro
Pro Pro Arg Trp Thr Trp Leu Trp Pro Ile Cys Glu Val Cys Trp Leu
Ser Ser Pro Leu Ser Pro Trp Ser Ser Val Glu Ser Ser Leu Ser Met
Arg Val Leu Ser Cys Asn Met Gly Gln Pro Cys Val Ser Gly Cys Val
Ser Ser Ile Ser Ser Phe Ser Met Ala Pro Ser Ala Thr Ser Leu Gly
Gln Ser Pro Gln Thr His Trp Trp Leu His Cys Ser Leu Pro Leu Ala
Gly Pro Ala Ser Pro Pro Gly Ala Ala Ala Pro Pro Pro Thr Ser Thr
Val Pro Pro Arg Ala Ser Leu
    130
<210> 326
<211> 15
<212> PRT
<213> Homo sapiens
<400> 326
Ser Cys His Ser Gly Gln Gln Ser Glu Thr Val Ser Glu Lys Lys
1 5 10 15
<210> 327
<211> 15
<212> PRT
<213> Homo sapiens
<400> 327
Ser Pro Pro Ile Ser Phe Thr Leu Thr Ser Gly Leu Pro Asn Pro
<210> 328
<211> 80
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
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<222> (15)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (16)
<223> Xaa equals any of the naturally occurring L-amino acids
<221> SITE
<222> (24)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (70)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 328
Gln Phe His Thr Gly Asn Ser Tyr Asp His Asp Tyr Ala Lys Xaa Xaa
Tyr Gly Asn Leu Tyr Tyr Arg Xaa Ser Trp Tyr Ala Cys Arg Tyr Arg
Ser Gly Ile Pro Gly Ser Thr His Ala Ser Glu Lys Ile Phe Leu Ser
                             40
Lys Leu Ile Val Cys Phe Leu Ser Thr Trp Leu Pro Phe Val Leu Leu
Gln Val Ile Ile Val Xaa Leu Lys Val Gln Ile Pro Ala Tyr Ile Glu
<210> 329
<211> 21
<212> PRT
<213> Homo sapiens
<400> 329
Ile Pro Ile Arg Phe Val Asn Ile Phe Phe His Ser Ala Gly Cys Leu
Phe Ile Phe Leu Ile
             20
<210> 330
<211> 655
<212> PRT
<213> Homo sapiens
<400> 330
Tyr Arg Ile Pro Leu Ala Ala Asp Ala Gly Leu Leu Gln Phe Leu Gln
Glu Phe Ser Gln Gln Thr Ile Ser Arg Thr His Glu Ile Lys Lys Gln
Val Asp Gly Leu Ile Arg Glu Thr Lys Ala Thr Asp Cys Arg Leu His
```

Asn Val Phe Asn Asp Phe Leu Met Leu Ser Asn Thr Gln Phe Ile Glu Asn Arg Val Tyr Asp Glu Glu Val Glu Pro Val Leu Lys Ala Glu Ala Glu Lys Thr Glu Gln Glu Lys Thr Arg Glu Gln Lys Glu Val Asp Leu Ile Pro Lys Val Gln Glu Ala Val Asn Tyr Gly Leu Gln Val Leu Asp Ser Ala Phe Glu Gln Leu Asp Ile Lys Ala Gly Asn Ser Asp Ser Glu Glu Asp Asp Ala Asn Gly Arg Val Glu Leu Ile Leu Glu Pro Lys 135 Asp Leu Tyr Ile Asp Arg Pro Leu Pro Tyr Leu Ile Gly Ser Lys Leu Phe Met Glu Gln Glu Asp Val Gly Leu Gly Glu Leu Ser Ser Glu Glu Gly Ser Val Gly Ser Asp Arg Gly Ser Ile Val Asp Thr Glu Glu Glu 180 185 Lys Glu Glu Glu Ser Asp Glu Asp Phe Ala His His Ser Asp Asn 200 Glu Gln Asn Gln His Thr Thr Gln Met Ser Asp Glu Glu Glu Asp Asp 215 Asp Gly Cys Asp Leu Phe Ala Asp Ser Glu Lys Glu Glu Glu Asp Ile 230 Glu Asp Ile Glu Glu Asn Thr Arg Pro Lys Arg Ser Arg Pro Thr Ser 250 Phe Ala Asp Glu Leu Ala Ala Arg Ile Lys Gly Asp Ala Met Gly Arg. 265 Val Asp Glu Glu Pro Thr Thr Leu Pro Ser Gly Glu Ala Lys Pro Arg Lys Thr Leu Lys Glu Lys Glu Arg Arg Thr Pro Ser Asp Asp Glu 295 300 Glu Asp Asn Leu Phe Ala Pro Pro Lys Leu Thr Asp Glu Asp Phe Ser Pro Phe Gly Ser Gly Gly Leu Phe Ser Gly Gly Lys Gly Leu Phe 330 Asp Asp Glu Asp Glu Glu Ser Asp Leu Phe Met Glu Ala Pro Gln Asp 345 Arg Gln Ala Gly Ala Ser Val Lys Glu Glu Ser Ser Ser Lys Pro Gly Lys Lys Ile Pro Ala Gly Ala Val Ser Val Phe Leu Gly Asp Thr Asp Val Phe Gly Ala Ala Ser Val Pro Ser Leu Lys Glu Pro Gln Lys 390 395

Pro Glu Gln Pro Thr Pro Arg Lys Ser Pro Tyr Gly Pro Pro Pro Thr Gly Leu Phe Asp Asp Asp Asp Gly Asp Asp Asp Asp Phe Phe Ser Ala Pro His Ser Lys Pro Ser Lys Thr Arg Lys Val Gln Ser Thr Ala 440 Asp Ile Phe Gly Asp Glu Glu Gly Asp Leu Phe Lys Glu Lys Ala Val Ala Ser Pro Glu Ala Thr Val Ser Gln Thr Asp Glu Asn Lys Ala Arg Ala Glu Lys Lys Asp Leu Phe Ser Ser Gln Ser Ala Ser Asn Leu Lys 485 490 Gly Ala Ser Leu Leu Pro Gly Lys Leu Pro Thr Ser Val Ser Leu Phe Asp Asp Glu Asp Glu Glu Asp Asn Leu Phe Gly Gly Thr Ala Ala Lys Lys Gln Thr Leu Ser Leu Gln Ala Gln Arg Glu Glu Lys Ala Lys Ala 530 535 Ser Glu Leu Ser Lys Lys Ala Ser Ala Leu Leu Phe Ser Ser Asp Glu Glu Asp Gln Trp Asn Ile Pro Ala Ser Gln Thr His Leu Ala Ser Asp Ser Arg Ser Lys Gly Glu Pro Arg Asp Ser Gly Thr Leu Gln Ser Gln Glu Ala Lys Ala Val Lys Lys Thr Ser Leu Phe Glu Glu Asp Lys 600 Glu Asp Asp Leu Phe Ala Ile Ala Lys Asp Ser Gln Lys Lys Thr Gln 615 Arg Val Ser Leu Leu Phe Glu Asp Asp Val Asp Ser Gly Gly Ser Leu Phe Gly Ser Pro Pro Thr Ser Val Pro Pro Ala Thr Lys Lys 650

<210> 331

<211> 182

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (22)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 331

Phe Leu Pro Asp His Pro Ala Lys Pro Pro Ser Ser Leu Val His Ser

Pro Phe Val Phe Gly Xaa Pro Leu Ser Phe Gln Gln Pro Gln Leu Gln 20

```
Lys Ser Pro Ser Arg Asn Leu Ala Ser Arg Glu Arg Ile Tyr Lys Asn 35 40 45
```

Tyr Gly Val Ala Gly Pro Ala Ser Ala Leu Ser Ser Leu Ser His Lys 50 60

Leu Lys Gly Asp Arg Gly Asn Ile Ser Thr Ser Ser Lys Pro Ala Ser 65 70 75 80

Thr Ser Gly Lys Ser Glu Leu Ser Ser Lys His Ser Arg Ser Leu Lys
85 90 95

Pro Asp Gly Arg Met Ser Arg Thr Thr Ala Asp Gln Lys Lys Pro Arg 100 105 110

Gly Thr Glu Ser Leu Ser Ala Ser Glu Ser Leu Ile Leu Lys Ser Asp $115 \\ \hspace{1.5cm} 120 \\ \hspace{1.5cm} 125$

Ala Ala Lys Leu Arg Ser Asp Ser His Ser Arg Ser Leu Ser Pro Asn 130 135 140

His Asn Thr Leu Gln Thr Leu Lys Ser Asp Gly Arg Met Pro Ser Ser $145 \setminus 150$ 155 160

Ser Arg Ala Glu Ser Pro Gly Pro Gly Ser Arg Leu His Leu Leu Ser 165 170 175

Gln Arg Leu Ser Gln Gln 180

<210> 332

<211> 60

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (22)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 332

Phe Leu Pro Asp His Pro Ala Lys Pro Pro Ser Ser Leu Val His Ser 1 5 10 15

Pro Phe Val Phe Gly Xaa Pro Leu Ser Phe Gln Gln Pro Gln Leu Gln 20 25 30

Lys Ser Pro Ser Arg Asn Leu Ala Ser Arg Glu Arg Ile Tyr Lys Asn $35 \hspace{1cm} 40 \hspace{1cm} 45$

Tyr Gly Val Ala Gly Pro Ala Ser Ala Leu Ser Ser 50 55 60

<210> 333

<211> 60

<212> PRT

<213> Homo sapiens

<400> 333

Leu Ser His Lys Leu Lys Gly Asp Arg Gly Asn Ile Ser Thr Ser Ser 1 5 10 15

Lys Pro Ala Ser Thr Ser Gly Lys Ser Glu Leu Ser Ser Lys His Ser

Arg Ser Leu Lys Pro Asp Gly Arg Met Ser Arg Thr Thr Ala Asp Gln

Lys Lys Pro Arg Gly Thr Glu Ser Leu Ser Ala Ser

<210> 334

<211> 62

<212> PRT <213> Homo sapiens

<400> 334

Glu Ser Leu Ile Leu Lys Ser Asp Ala Ala Lys Leu Arg Ser Asp Ser

His Ser Arg Ser Leu Ser Pro Asn His Asn Thr Leu Gln Thr Leu Lys

Ser Asp Gly Arg Met Pro Ser Ser Ser Arg Ala Glu Ser Pro Gly Pro

Gly Ser Arg Leu His Leu Leu Ser Gln Arg Leu Ser Gln Gln

<210> 335

<211> 487

<212> PRT

<213> Homo sapiens

<400> 335

Met Val Glu Phe Cys Glu Ser Asp Glu Gly Glu Ala Trp Ser Leu Ala

Arg Asp Arg Gly Gly Asn Gln Tyr Leu Arg His Glu Asp Glu Gln Ala

Leu Leu Asp Gln Asn Ser Gln Thr Pro Pro Pro Ser Pro Phe Ser Val 40

Gln Ala Phe Asn Lys Gly Ala Ser Cys Ser Ala Gln Gly Phe Asp Tyr

Gly Leu Gly Asn Ser Lys Gly Asp Gln Leu Ser Ala Ile Leu Asn Ser

Ile Gln Ser Arg Pro Asn Leu Pro Ala Pro Ser Ile Phe Asp Gln Ala

Ala Lys Pro Pro Ser Ser Leu Val His Ser Pro Phe Val Phe Gly Gln 100

Pro Leu Ser Phe Gln Gln Pro Gln Leu Gln Lys Ser Pro Ser Arg Asn 120

Leu Ala Ser Arg Glu Arg Ile Tyr Lys Asn Tyr Gly Val Ala Gly Pro 135

Ala Ser Ala Leu Ser Ser Leu Ser His Lys Leu Lys Gly Asp Arg Gly

Asn Ile Ser Thr Ser Ser Lys Pro Ala Ser Thr Ser Gly Lys Ser Glu 165 170

Leu Ser Ser Lys His Ser Arg Ser Leu Lys Pro Asp Gly Arg Met Ser 185 Arg Thr Thr Ala Asp Gln Lys Lys Pro Arg Gly Thr Glu Ser Leu Ser Ala Ser Glu Ser Leu Ile Leu Lys Ser Asp Ala Ala Lys Leu Arg Ser 210 215 220 Asp Ser His Ser Arg Ser Leu Ser Pro Asn His Asn Thr Leu Gln Thr Leu Lys Ser Asp Gly Arg Met Pro Ser Ser Ser Arg Ala Glu Ser Pro Gly Pro Gly Ser Arg Leu Ser Ser Pro Lys Pro Lys Thr Leu Pro Ala 260 265 Asn Arg Ser Ser Pro Ser Gly Ala Ser Ser Pro Arg Ser Ser Ser Pro 280 His Asp Lys Asn Leu Pro Gln Lys Ser Thr Ala Pro Val Lys Thr Lys Leu Asp Pro Pro Arg Glu Arg Ser Lys Ser Asp Ser Tyr Thr Leu Asp 305 310 315 Pro Asp Thr Leu Arg Lys Lys Met Pro Leu Thr Glu Pro Leu Arg Gly Arg Ser Thr Ser Pro Lys Pro Lys Ser Val Pro Lys Asp Ser Thr Asp Ser Pro Gly Ser Glu Asn Arg Ala Pro Ser Pro His Val Val Gln Glu Asn Leu His Ser Glu Val Val Glu Val Cys Thr Ser Ser Thr Leu 375 Lys Thr Asn Ser Leu Thr Asp Ser Thr Cys Asp Asp Ser Ser Glu Phe 390 395 Lys Ser Val Asp Glu Gly Ser Asn Lys Val His Phe Ser Ile Gly Lys Ala Pro Leu Lys Asp Glu Gln Glu Met Arg Ala Ser Pro Lys Ile Ser 425 Arg Lys Cys Ala Asn Arg His Thr Arg Pro Lys Lys Glu Lys Ser Ser 440 Phe Leu Phe Lys Gly Asp Gly Ser Gly Ala Phe Arg Ala Ser Gln Ser Lys Pro Cys Leu Leu Trp Pro Asn Val Pro Glu Leu Cys Leu Leu 470 Pro Ser Ser Gly Met Lys Ala 485

<210> 336

<211> 526

<212> PRT

<213> Homo sapiens

<400> 336 Asn Gly Tyr Thr Glu Ala Trp Cys Leu Ser Phe Asn Gln His Leu Gly 10 Lys Ser Leu Leu Val Pro Val Asp Val Thr Asn Ser Glu Gly Thr Trp Val Gln Leu Asp Gln Asn Ser Met Val Glu Phe Cys Glu Ser Asp Glu 40 Gly Glu Ala Trp Ser Leu Ala Arg Asp Arg Gly Gly Asn Gln Tyr Leu Arg His Glu Asp Glu Gln Ala Leu Leu Asp Gln Asn Ser Gln Thr Pro Pro Pro Ser Pro Phe Ser Val Gln Ala Phe Asn Lys Gly Ala Ser Cys Ser Ala Gln Gly Phe Asp Tyr Gly Leu Gly Asn Ser Lys Gly Asp Gln Leu Ser Ala Ile Leu Asn Ser Ile Gln Ser Arg Pro Asn Leu Pro Ala Pro Ser Ile Phe Asp Gln Ala Ala Lys Pro Pro Ser Ser Leu Val His 135 140 Ser Pro Phe Val Phe Gly Gln Pro Leu Ser Phe Gln Gln Pro Gln Leu 155 Gln Lys Ser Pro Ser Arg Asn Leu Ala Ser Arg Glu Arg Ile Tyr Lys 170 Asn Tyr Gly Val Ala Gly Pro Ala Ser Ala Leu Ser Ser Leu Ser His 185 Lys Leu Lys Gly Asp Arg Gly Asn Ile Ser Thr Ser Ser Lys Pro Ala 200 Ser Thr Ser Gly Lys Ser Glu Leu Ser Ser Lys His Ser Arg Ser Leu Lys Pro Asp Gly Arg Met Ser Arg Thr Thr Ala Asp Gln Lys Lys Pro 230 235 Arg Gly Thr Glu Ser Leu Ser Ala Ser Glu Ser Leu Ile Leu Lys Ser Asp Ala Ala Lys Leu Arg Ser Asp Ser His Ser Arg Ser Leu Ser Pro Asn His Asn Thr Leu Gln Thr Leu Lys Ser Asp Gly Arg Met Pro Ser 280 Ser Ser Arg Ala Glu Ser Pro Gly Pro Gly Ser Arg Leu Ser Ser Pro Lys Pro Lys Thr Leu Pro Ala Asn Arg Ser Ser Pro Ser Gly Ala Ser Ser Pro Arg Ser Ser Pro His Asp Lys Asn Leu Pro Gln Lys Ser 325 330 Thr Ala Pro Val Lys Thr Lys Leu Asp Pro Pro Arg Glu Arg Ser Lys 345

SerAspSerTyrThrLeuAspPro
360AspThrLeuArgLysLysMetProLeuThrGluProLeuArgGlyArgSerThrSerProLysProLysSerValProLysAspSerThrAspSerProGlySerGluAsnArgAlaProSerProHisValValGluGluAsnLeuHisSerGluValValAlaValCysThrSerSerThrLeuLysThrAspSerLeuThrAspSerThrCysAspAspAspSerIleGlyLysAlaProLeuLysAspGluGlyMetArgAlaSerProLysArgLysArgLysLysArgAspGlyAspIleArgAlaProLysGlyLysSerProLysLysAlaAspAspGlyAspGlyAspAlaProLysAlaProLysLysAlaAspAlaAspFroAspAlaAlaProLysAlaProLysAlaAlaAlaAlaAlaAlaAlaAlaAlaAlaAlaProLysPro

<210> 337

<211> 112

<212> PRT <213> Homo sapiens

<400> 337

Asn Gly Tyr Thr Glu Ala Trp Cys Leu Ser Phe Asn Gln His Leu Gly $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$

Val Pro Glu Leu Cys Leu Leu Pro Ser Ser Gly Met Lys Ala

Lys Ser Leu Leu Val Pro Val Asp Val Thr Asn Ser Glu Gly Thr Trp $20 \\ 25 \\ 30$

Val Gln Leu Asp Gln Asn Ser Met Val Glu Phe Cys Glu Ser Asp Glu 35 40 45

Gly Glu Ala Trp Ser Leu Ala Arg Asp Arg Gly Gly Asn Gln Tyr Leu 50 60

Arg His Glu Asp Glu Gln Ala Leu Leu Asp Gln Asn Ser Gln Thr Pro 65 70 75 80

Pro Pro Ser Pro Phe Ser Val Gln Ala Phe Asn Lys Gly Ala Ser Cys 85 90 95

Ser Ala Gln Gly Phe Asp Tyr Gly Leu Gly Asn Ser Lys Gly Asp Gln 100 105 110

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177
<210> 338
<211> 22
<212> PRT
<213> Homo sapiens
<400> 338
Asn Gly Tyr Thr Glu Ala Trp Cys Leu Ser Phe Asn Gln His Leu Gly
                                      10
Lys Ser Leu Leu Val Pro
             2.0
<210> 339
<211> 98
<212> PRT
<213> Homo sapiens
<400> 339
Leu Gly Lys Ser Leu Leu Val Pro Val Asp Val Thr Asn Ser Glu Gly
Thr Trp Val Gln Leu Asp Gln Asn Ser Met Val Glu Phe Cys Glu Ser
Asp Glu Gly Glu Ala Trp Ser Leu Ala Arg Asp Arg Gly Gly Asn Gln
                              40
Tyr Leu Arg His Glu Asp Glu Gln Ala Leu Leu Asp Gln Asn Ser Gln
Thr Pro Pro Pro Ser Pro Phe Ser Val Gln Ala Phe Asn Lys Gly Ala
Ser Cys Ser Ala Gln Gly Phe Asp Tyr Gly Leu Gly Asn Ser Lys Gly
Asp Gln
<210> 340
<211> 301
<212> PRT
<213> Homo sapiens
<400> 340
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100 105 110 Lys Thr Leu Pro Ala Asn Arg Ser Ser Pro Ser Gly Ala Ser Ser Pro 120 Arg Ser Ser Pro His Asp Lys Asn Leu Pro Gln Lys Ser Thr Ala Pro Val Lys Thr Lys Leu Asp Pro Pro Arg Glu Arg Ser Lys Ser Asp Ser Tyr Thr Leu Asp Pro Asp Thr Leu Arg Lys Lys Met Pro Leu Thr Glu Pro Leu Arg Gly Arg Ser Thr Ser Pro Lys Pro Lys Ser Val 185 Pro Lys Asp Ser Thr Asp Ser Pro Gly Ser Glu Asn Arg Ala Pro Ser Pro His Val Val Gln Glu Asn Leu His Ser Glu Val Val Glu Val Cys Thr Ser Ser Thr Leu Lys Thr Asn Ser Leu Thr Asp Ser Thr Cys Asp 235 Asp Ser Ser Glu Phe Lys Ser Val Asp Glu Gly Ser Asn Lys Val His Phe Ser Ile Gly Lys Ala Pro Leu Lys Asp Glu Gln Glu Met Arg Ala Ser Pro Lys Ile Ser Arg Lys Cys Ala Asn Arg His Thr Arg Pro Lys Lys Glu Lys Ser Ser Phe Leu Phe Lys Gly Asp Gly Ser <210> 341 <211> 196 <212> PRT <213> Homo sapiens <400> 341 Ser Gln Pro Lys Gln Ala Met Ser Pro Ser Val Ala Glu Cys Ala Arg Ala Val Phe Ala Ser Phe Leu Trp His Glu Gly Ile Val Met Met His Gly Leu Ser Ser Phe Leu Lys Phe His Pro Glu Leu Ser Lys Glu His Ala Pro Ile Arg Ser Ser Leu Asn Ser Gln Gln Pro Thr Glu Glu Lys Glu Thr Lys Leu Glu Asn Arg His Ser Leu Glu Ile Ser Ser Ala Leu Asn Met Phe Asn Ile Ala Pro His Gly Pro Asp Ile Ser Lys Met Gly Ser Ile Asn Lys Asn Lys Val Leu Ser Met Leu Lys Glu Pro Pro Leu

105

His Glu Lys Cys Glu Asp Gly Lys Thr Glu Thr Thr Phe Glu Met Ser

Met His Asn Thr Met Lys Ser Lys Ser Pro Leu Pro Leu Thr Leu Gln

His Leu Val Ala Phe Trp Glu Asp Ile Ser Leu Ala Thr Ile Lys Ala 150 155

Ala Ser Gln Asn Met Ile Phe Pro Ser Pro Gly Ser Cys Ala Val Leu

Lys Lys Glu Cys Glu Lys Glu Asn Lys Lys Ser Lys Glu Lys

Lys Lys Lys 195

<210> 342

<211> 190 <212> PRT

<213> Homo sapiens

<400> 342

Met Ser Pro Ser Val Ala Glu Cys Ala Arg Ala Val Phe Ala Ser Phe

Leu Trp His Glu Gly Ile Val Met His Gly Leu Ser Ser Phe Leu

Lys Phe His Pro Glu Leu Ser Lys Glu His Ala Pro Ile Arg Ser Ser

Leu Asn Ser Gln Gln Pro Thr Glu Glu Lys Glu Thr Lys Leu Glu Asn

Arg His Ser Leu Glu Ile Ser Ser Ala Leu Asn Met Phe Asn Ile Ala

Pro His Gly Pro Asp Ile Ser Lys Met Gly Ser Ile Asn Lys Asn Lys

Val Leu Ser Met Leu Lys Glu Pro Pro Leu His Glu Lys Cys Glu Asp 105

Gly Lys Thr Glu Thr Thr Phe Glu Met Ser Met His Asn Thr Met Lys 120

Ser Lys Ser Pro Leu Pro Leu Thr Leu Gln His Leu Val Ala Phe Trp

Glu Asp Ile Ser Leu Ala Thr Ile Lys Ala Ala Ser Gln Asn Met Ile 150 155

Phe Pro Ser Pro Gly Ser Cys Ala Val Leu Lys Lys Lys Glu Cys Glu

Lys Glu Asn Lys Lys Ser Lys Lys Glu Lys Lys Lys Lys 185

<210> 343

<211> 26

<212> PRT

<213> Homo sapiens

<400> 343

Lys Gln Ala Met Ser Pro Ser Val Ala Glu Cys Ala Arg Ala Val Phe $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$

Ala Ser Phe Leu Trp His Glu Gly Ile Val 20 25

<210> 344

<211> 162

<212> PRT

<213> Homo sapiens

<400> 344

Ser Ser Phe Leu Lys Phe His Pro Glu Leu Ser Lys Glu His Ala Pro 1 5 10 15

Ile Arg Ser Ser Leu Asn Ser Gln Gln Pro Thr Glu Glu Lys Glu Thr 20 25 30

Lys Leu Glu Asn Arg His Ser Leu Glu Ile Ser Ser Ala Leu Asn Met
35 40 45

Phe Asn Ile Ala Pro His Gly Pro Asp Ile Ser Lys Met Gly Ser Ile 50 55 60

Asn Lys Asn Lys Val Leu Ser Met Leu Lys Glu Pro Pro Leu His Glu 65 70 75 80

Lys Cys Glu Asp Gly Lys Thr Glu Thr Thr Phe Glu Met Ser Met His 85 90 95

Asn Thr Met Lys Ser Lys Ser Pro Leu Pro Leu Thr Leu Gln His Leu 100 105 110

Val Ala Phe Trp Glu Asp Ile Ser Leu Ala Thr Ile Lys Ala Ala Ser 115 120 125

Gln Asn Met Ile Phe Pro Ser Pro Gly Ser Cys Ala Val Leu Lys Lys 130 135 140

Lys Glu Cys Glu Lys Glu Asn Lys Lys Ser Lys Lys Glu Lys Lys 145 150 155 160

Lys Lys